

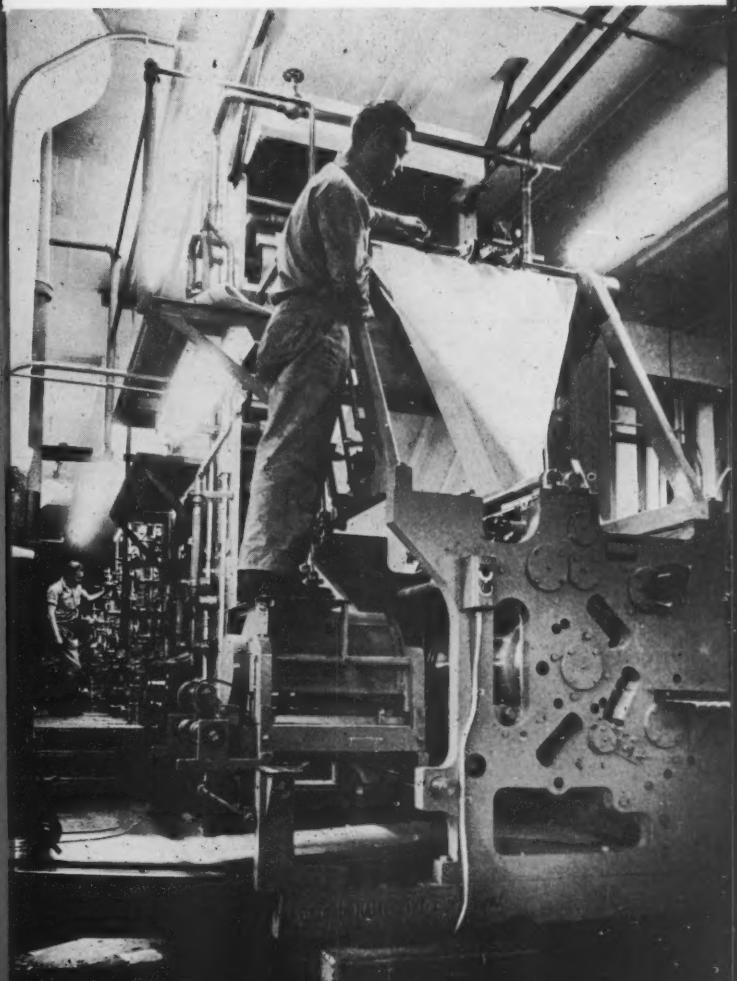
Modern

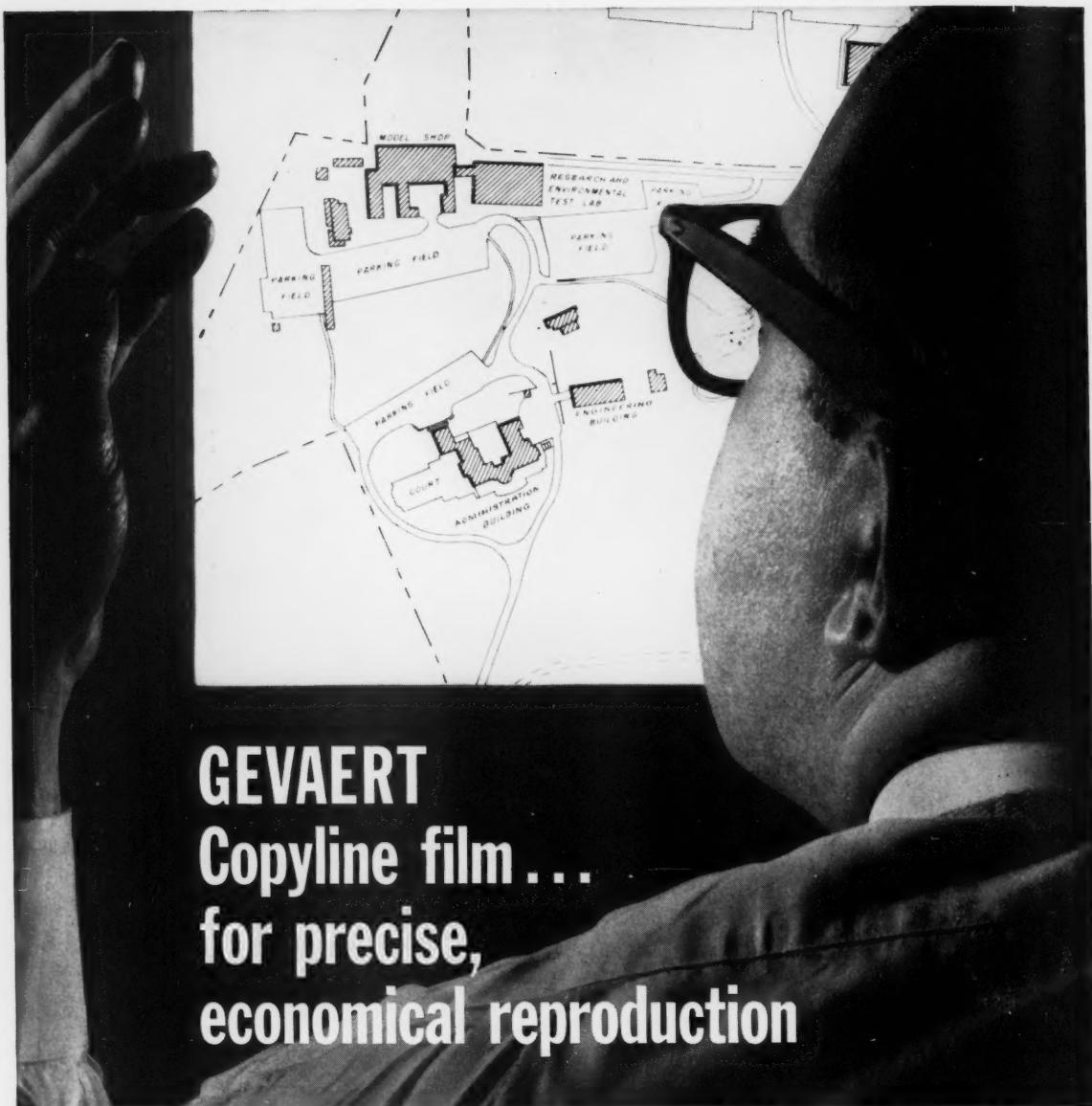
this issue

- { Mediocrity in Midwest
- Exposition, Spectra Plans
- 'Our First Year with Web-Offset'
- Photos of TAGA, S.W. Litho Clinic
- Developing Supervisors

AUGUST, 1959

LITHOGRAPHY





GEVAERT Copyline film . . . for precise, economical reproduction

Gevaert COPYLINE is the film specifically designed to give you precise reproduction at low cost. Because of its extremely contrasty orthochromatic emulsion, it is particularly suited to the detailed reproduction of engineering drawings, tracings and routine offset work by camera or contact. COPYLINE's light matte surface makes it simple to use any retouching procedure. There's no problem with minor miscalcula-

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O 82 Litholine Ortho—in regular base, same emulsion—0.006" thick.

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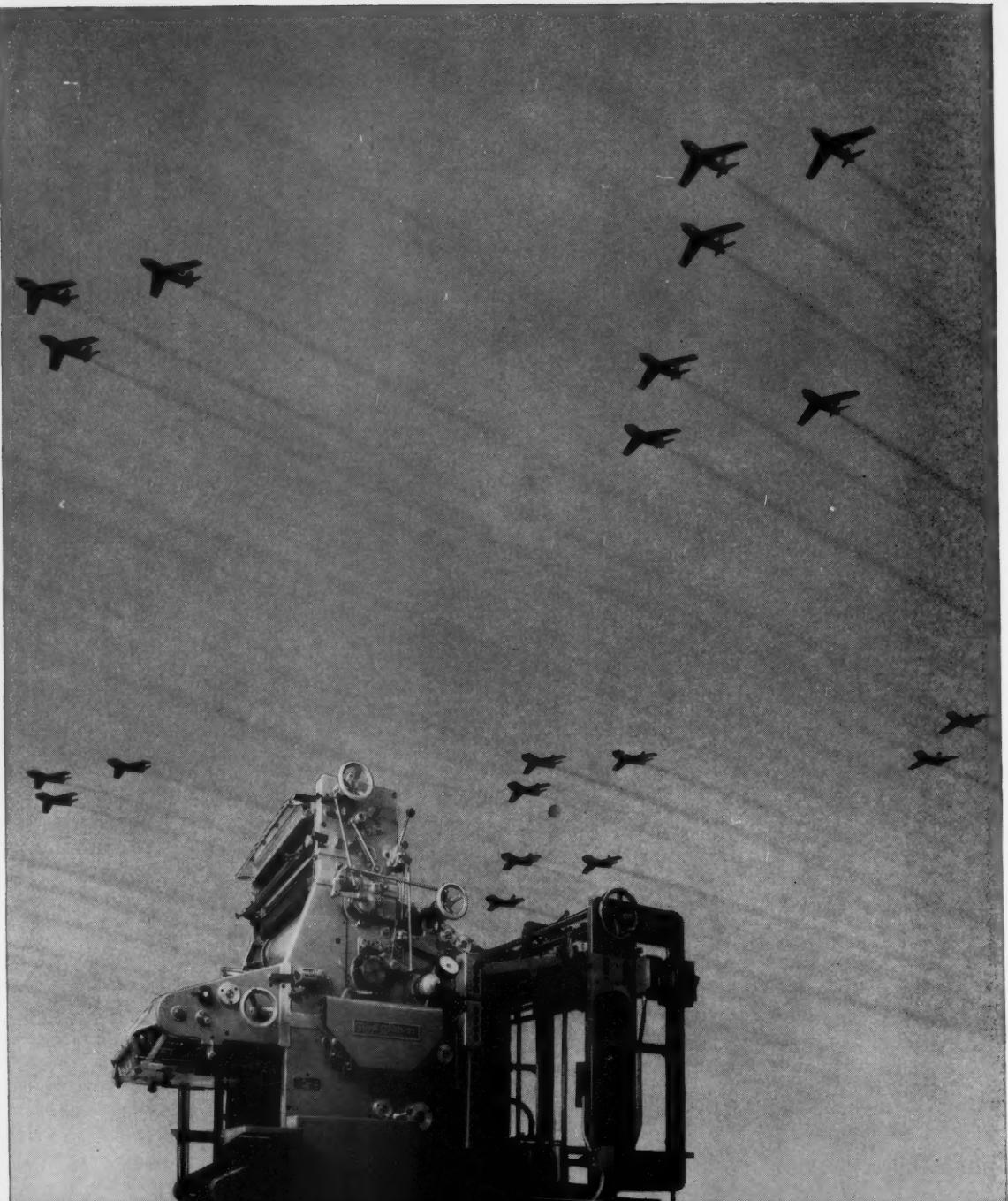
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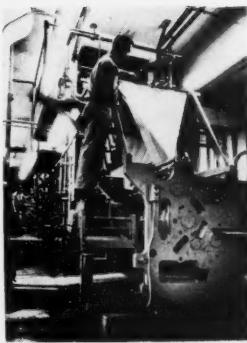


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achieve superior strength and precision without the penalty of weight: they have taken man past the barrier of sound and to the edge of space. These are the basic structural metals of only one offset press — the most advanced single-color offset press available today:

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Cover

Talk to any web-offset owner about going into the business and he'll caution you that before you make a move you should spend many months planning for the new equipment. Even at that, there will be the inevitable problems, but at least they will be held to a minimum. Read Murray Monse's enlightening article on page 40 for further details. Photo shows web-offset press at his plant, Rosenthal-Kaufman.

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Feature Articles

Mediocrity in the Middle West.....	36
<i>By Florence E. Brougham</i>	
Scenes at TAGA Meeting.....	38
Rootin' Tootin' S.W. Clinic.....	39
'Our First Year with Web-Offset'.....	40
<i>By Murray Monse</i>	
Exposition, Spectra Reports.....	43
New Device for Salesmen: Portable Tape Recorder.....	44
<i>By Robert Angus</i>	
Reproducing to Accurate Size (Part III).....	46
<i>By Frank H. Smith</i>	
How's Your CR?.....	49
<i>By Paul Brink</i>	
An In-Plant Program for Training Supervisors.....	50
<i>By Robert B. Stauffer</i>	
Five Steps to Avoid Press Problems.....	52
Good Planning Means Better Production.....	55
<i>By Walter Garde</i>	

Departments

Letters to the Editor.....	18
Meeting Calendar.....	18
Editorial	35
Photographic Clinic.....	57
<i>By Herbert Paschel</i>	
Technical Section.....	61
Litho Club News.....	70
Litho Schools and Trade Directory.....	71
Metal Decorating Section.....	73
Through the Glass.....	76
News About The Trade.....	87
Equipment, Supplies, Bulletins.....	107
Classified Advertisements.....	125
Local Buyers' Guide.....	127
Index To Advertisers.....	129
Tale Ends.....	130

MODERN LITHOGRAPHY

VOLUME 27, NUMBER 8

AUGUST, 1959

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The well balanced chemical elements in Dumore give it properties that make it a necessity in every litho shop. It washes out or dissolves any ink on the surface of the image regardless of the heaviness of the ink coverage. It provides a protective coating during storage. Since it never dries completely, it retains a tackiness and affinity for ink when the plate is re-run. It is packed in the new "Accupor" can for easy handling and it's economical — you get 4 quart cans for the price of a gallon in bulk.

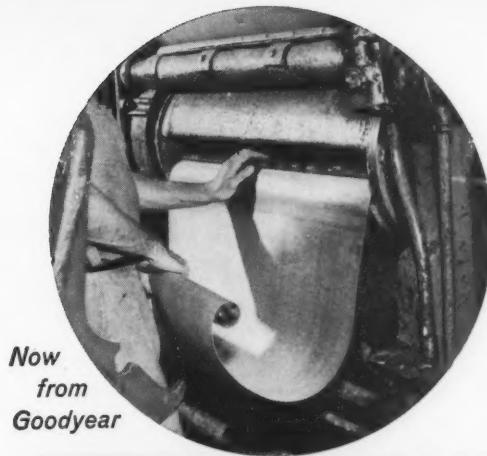
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Wouldn't it pay you, then, to get all the details on this remarkable new contribution to finer offset work at greater over-all savings? For full details, see your local Goodyear Distributor — or write Goodyear, Printers Supplies Sales Dept., New Bedford, Massachusetts.

Hi-Fi — T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

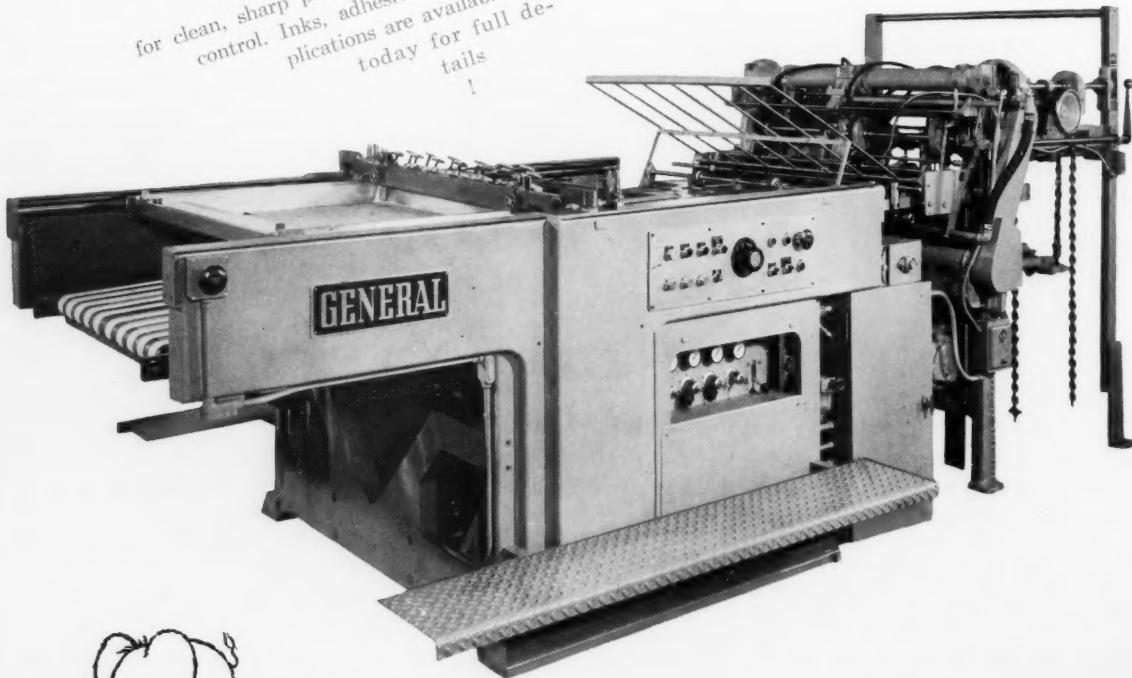
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minimum packing and pressure

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Dinolith Plus Ortho is winning more users every day. This outstanding lith film produces consistent, quality negatives for line work or halftones from all types of copy.

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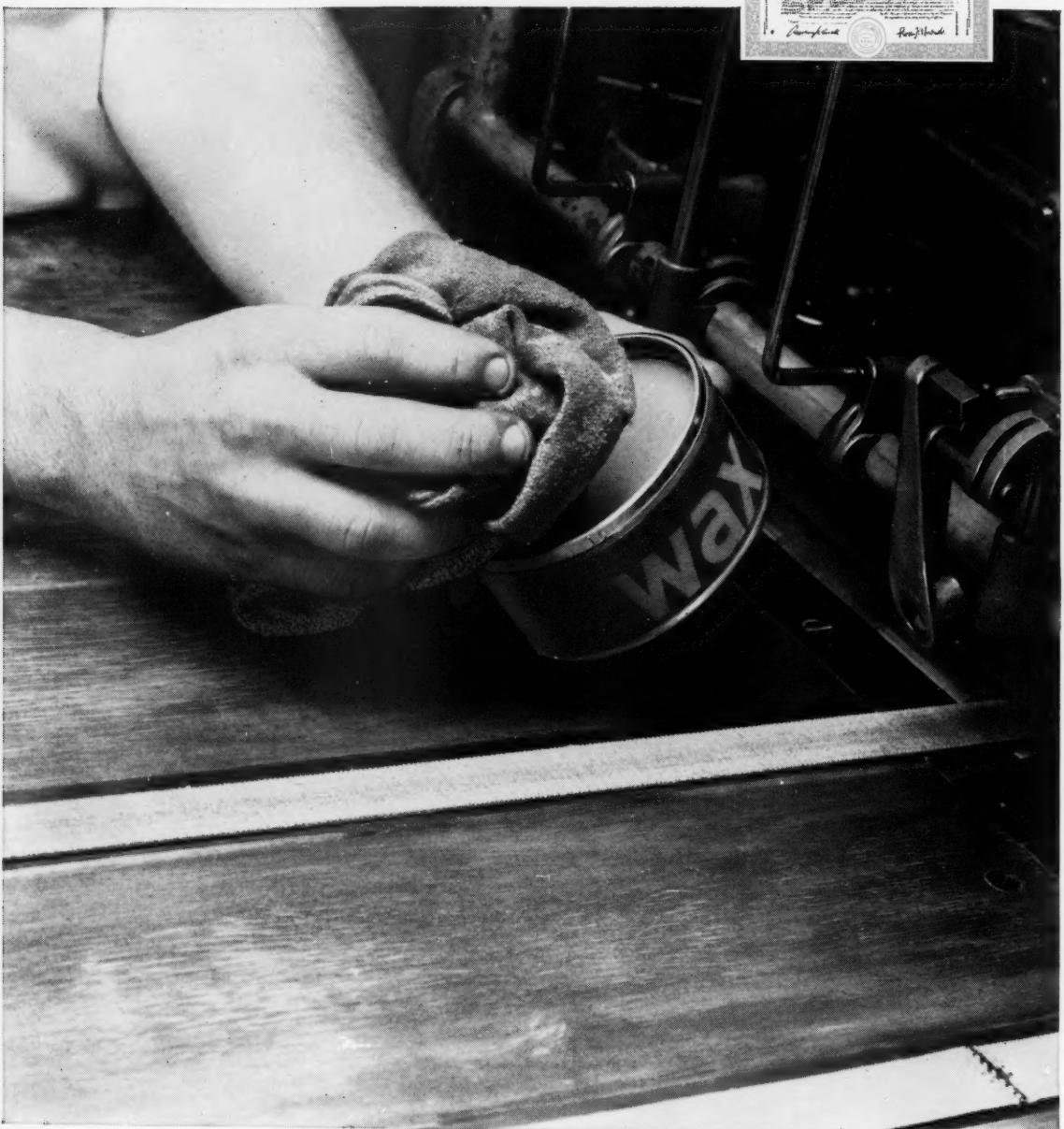
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printers . . . lithographers . . .

LET'S SWAP IDEAS!

Earn a share of Kimberly-Clark stock!



(Fig. 1)



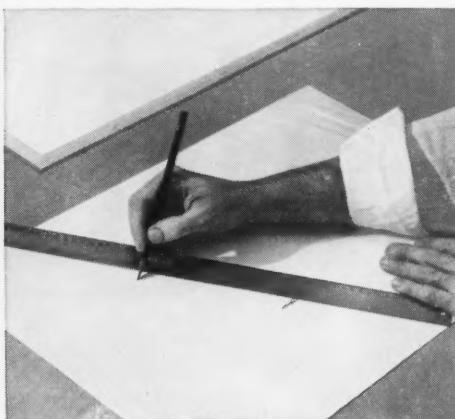
Here's how easy it is to earn your share of stock!

No doubt, from time to time you have made some little time-or-money-saving improvement in your shop. Or in a shop where you work. Maybe it was a short cut in production, in presswork, in the way you do business. Whatever the idea, no matter how simple, it may earn a share of stock for you. All you do is write it out clearly and send it to Kimberly-Clark. No elaborate explanations are needed. However, pictures or drawings

you may have that help explain the idea are welcome.

All items become the property of Kimberly-Clark. For each idea chosen to appear in subsequent national magazine ads, a share of Kimberly-Clark stock will be awarded to the sender. In case of similar contributions, only the first received will be eligible for the stock. Decisions of the judges are final. A total of eighteen shares will be awarded.

Ideas like these could be "stockearners"!



(Fig. 2)



(Fig. 3)

"Waxes away" static electricity. (Fig. 1) Static electricity can be kept to a minimum by applying any common auto wax to the flat surfaces of a letterpress, offset press or folder. A single application of the wax will last from three to six months.

How to cut sheets to exact fractions. (Fig. 2) When cutting paper stock in thirds, fifths, any fraction, it is impossible to measure exactly with an ordinary yardstick. However, by placing your ruler at an

angle on an easily divisible number, you can get perfect results. For example, if you want to cut a 17-inch sheet into thirds, simply angle your ruler to 18 inches, mark it at 6 and 12, and you've got it!

Rubber stamp pad saves proofing. (Fig. 3) It is often necessary to attach a proof of a small cut, for identification purposes, to an insertion order, receipt or layout. By simply inking the cut on an ordinary stamp pad, you can make an impression wherever you wish.

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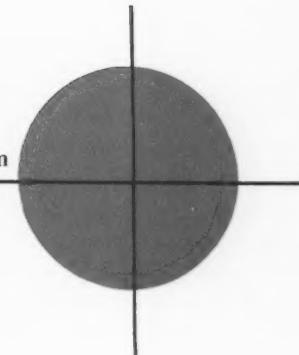
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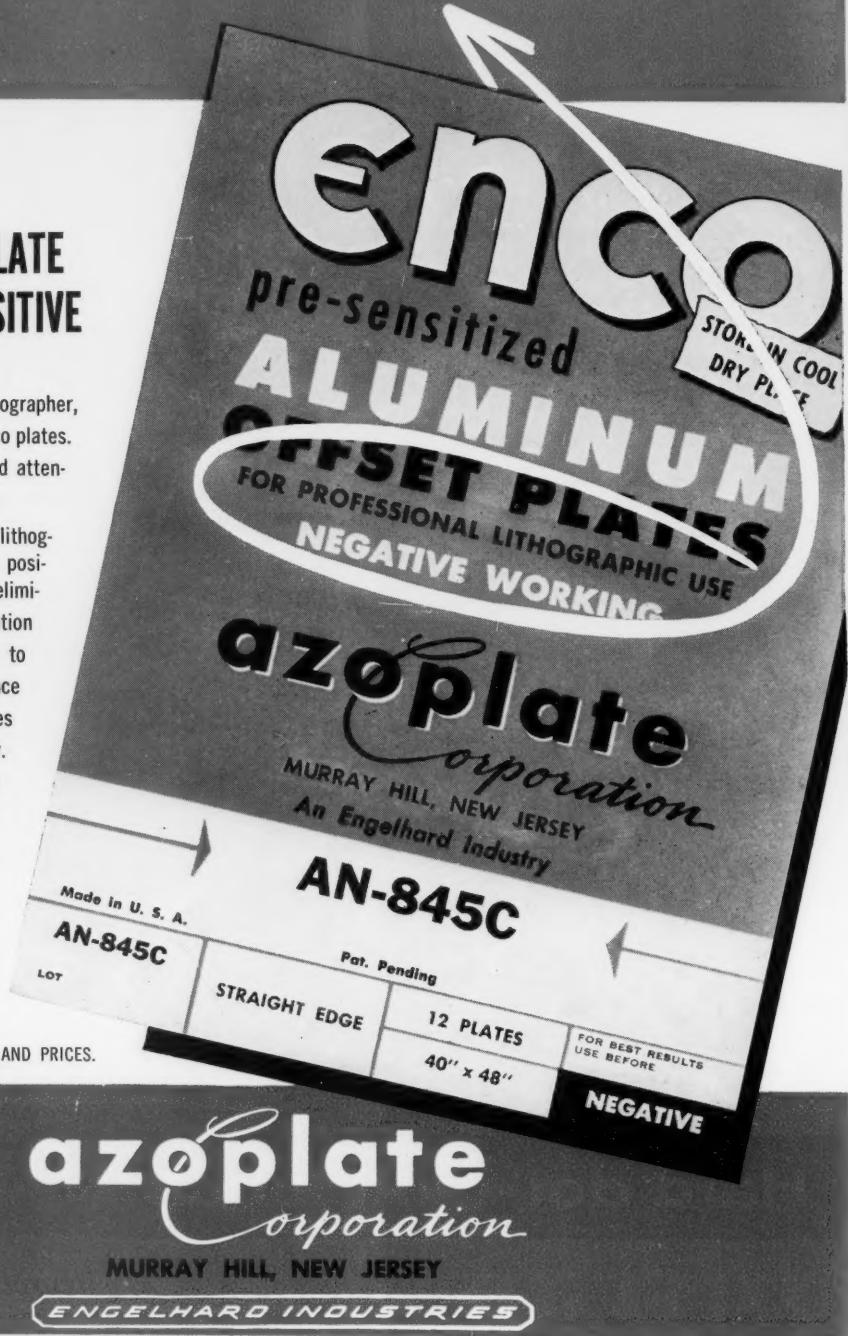
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Type-X was developed in the Chemco laboratories as a result of a major break-through in emulsion research. Now, thoroughly tested and proven, it is helping to increase the profits of lithographers everywhere.

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tremely hard dot. The very high orthochromatic character of Type-X makes possible maximum speed, efficiency and economy regardless of the lighting source used. It is particularly recommended for halftone exposures where both quality and high speed production are important. It is a perfect companion for regular Powerlith film which is well suited for line work.

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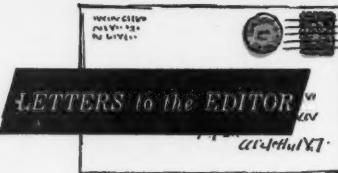
Ask your Franchised EASTERN Merchant for samples. Or write direct.



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IN FINE PAPERS

EASTERN

EASTERN FINE PAPER AND PULP DIVISION
STANDARD PACKAGING CORPORATION
BANGOR, MAINE



German Books on Masking

Dear Sir:

In your February, 1959, issue, page 125, there is a review of two German booklets on masking. If they are in English, I would appreciate your advising me how to obtain them.

Edward Brody
American Color Process Co.
Cleveland

Sorry, these are available in German language only.—*Editor*.

Litho Schools

Dear Sir:

I am working as a lithographic pressman in the U. S. Air Force and am interested in photo processing and platemaking. Could you give me any information on schools that teach these subjects?

Frank Tanner
5040th Support Group
Seattle, Wash.

We are sending a copy of our list of litho schools, which is published each month in ML.—*Editor*.

Technical Article

Dear Sir:

Will you kindly give us further information on the article on page 55 of your July, 1958 issue with reference to "Reduction of Density Change Between Wet and Dry Images . . ." by Raymond Alfaya?

In the event that you do not have further information than that provided in the article, will you please give us Mr. Alfaya's address?

J. A. Addie
Zenith Engraving Co., Ltd.
Vancouver 2, B. C.

You can obtain a complete copy of the article by purchasing a copy of the 1958 TAGA Proceedings. Write to TAGA, P.O. Box 3064, Federal Station, Rochester 14, N. Y.—*Editor*.

Letterpress Conversion

Dear Sir:

We thought you might be interested in the enclosed poster which we have just produced by offset lithography.

The only copy available to us was a letterpress print sent over from the U. S. A. We are reasonably satisfied with the result obtained under these conditions and think you will agree that it answers completely that

small group of critics who still say litho lacks punch.

Incidentally, we are curious to know why this job was ever printed from blocks in the first instance.

S. A. Taylor
C. M. Banks Ltd.
Wellington, New Zealand

We agree that it is an excellent example of color lithography. Highly successful conversion jobs of this type are becoming more and more common in offset, and frequently excell the letterpress original.—*Editor*.

Likes Convention Coverage

Dear Sir:

The fine pictorial presentation you gave of the recent convention of the Southern Graphic Arts Association is certainly appreciated by me. You gave the convention splendid coverage and the pictures were outstanding.

I am confident that the members of the Southern Graphic Arts Association who see this splendid article will join me in saying a big Thank You.

Charles E. Kennedy
Secretary,
Southern Graphic Arts Association

Credit for the excellent pictures of the SGAA meeting should go to Mrs. J. Tom Morgan, who took them for ML.—*Ed.*★

Next Month: Special features in connection with Graphic Arts Exposition.

Meetings

International Association of the Printing House Craftsmen, Statler Hotel, New York, Sept. 5-9.

Printing Industry of America, 73rd annual convention, Waldorf-Astoria Hotel, New York, Sept. 6-10, 1959.

Label Mfrs. Association, Park Sheraton Hotel, New York, Sept. 6-12.

7th Educational Graphic Arts Exposition, Coliseum, New York, Sept. 6-12, 1959.

National Metal Decorators Association, 25th annual convention, Roosevelt Hotel, New Orleans, Oct. 12-14, 1959.

National Association of Photo-Lithographers, annual convention and exhibit, Hotel Muehlebach, Kansas City, Mo., Nov. 18-21, 1959.

Southern Graphic Arts Association, 39th annual convention, Hotel Eola, Natchez, Miss., April 21-23, 1960.

Lithographers and Printers National Association, annual convention, Boca Raton Club, Boca Raton, Fla., April 25-28, 1960.

National Association of Litho Clubs, 15th annual convention, Hotel Statler, Boston, May 19-21, 1960.



Printed Offset on Atlantic Offset • Regular Finish • Basis 80

PRIDE IS A DAUGHTER. Watching her put aside dungarees for an evening dress, mocassins for high heels. Pride. The ingredient that makes a man want more for his family, demand more from himself. Pride. The mark of fine printers. The mark of Atlantic fine papers.



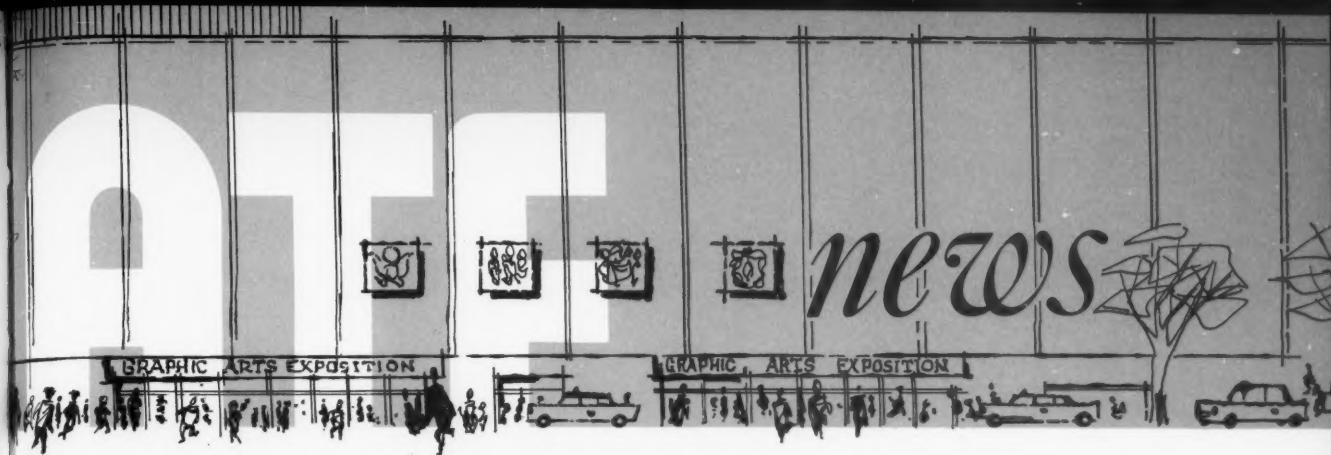
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AMERICAN TYPE FOUNDERS

EXPOSITION GUIDE ISSUE

ELIZABETH, NEW JERSEY

This ATF equipment is described on the pages following

HADEGO PHOTOCOMPOSITOR
TYPESETTER PHOTO UNIT
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SUPER CHIEF
CHIEF 126
CHIEF 226
PERFECTOR
CHIEF 24
TYPE DISPLAY

small offset plant

Graphic Arts Exposition

WHAT TO LOOK FOR...

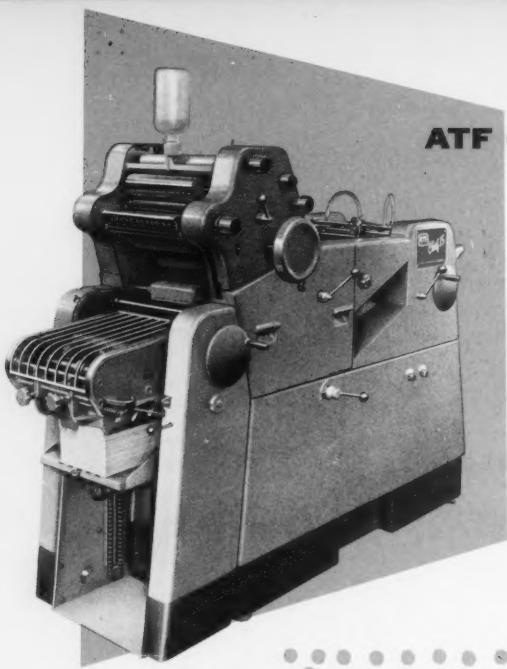


Here's your preview and guide to the popular line of ATF printing equipment
that will be demonstrated at the New York Coliseum,
September 6-12.

Chart outlines our exhibit and shows exactly where to find the equipment
which most interests you.

Each item is keyed to photographs with brief descriptions shown on
pages following.

★ **brand new!**



ATF CHIEF 15

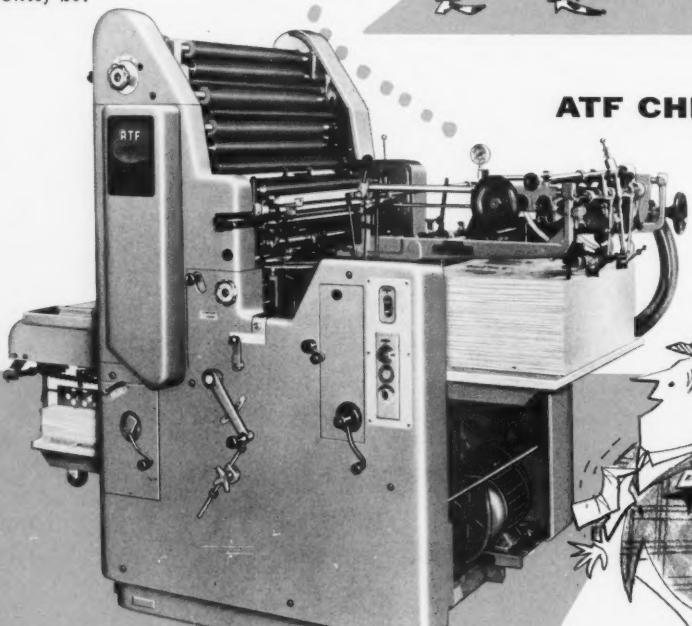
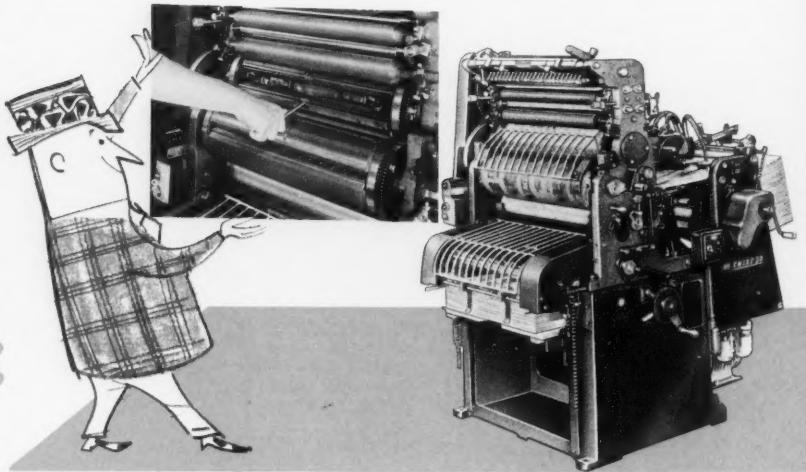
Have a good look at the popular ATF Chief 15 when you stop at our exhibit. Although it is basically in the "duplicator" size range, this 11x15" offset press provides many "big press" construction features which save time and assure quality reproduction. Not surprising is the large number of Chief 15's going into small shops starting offset departments. Surprising is the number of plants with much larger offset equipment which are adding Chief 15's... for "good profits on jobs that we formerly had to turn down," as one user expressed it.

A complete commercial offset printing plant will be operating at the ATF exhibit... featuring the Chief 15.



ATF CHIEF 20

For simplicity of operation, no other press in its size range can match the Chief 20. No other offset job press can beat it for dependable performance on so many different types of jobs. You'll like the quick lock-up clamp which lets you make plate changes in less than a minute. You can use a variety of plates... zinc, presensitized, paper, plastic, etc. Ask to see all the features that make run-of-the-shop jobs a cinch for the Chief 20.



ATF CHIEF 24



Rapidly increasing popularity of the compact ATF Chief 24 stems from its ability to satisfactorily print, quickly and economically, the most popular commercial sizes: 8½x11" four-up with full bleed and room to spare; 9x12" four-up; and 6x9" eight-up. New sheet detectors, located close to the head stops, check the sheet $\frac{1}{4}$ " from the gripper edge. A crooked or late sheet will automatically trip the press—yet the sheet will be delivered, unprinted and uncounted, to the delivery pile for removal. You'll see this and other outstanding features demonstrated when you visit our exhibit at the Show.

ATF

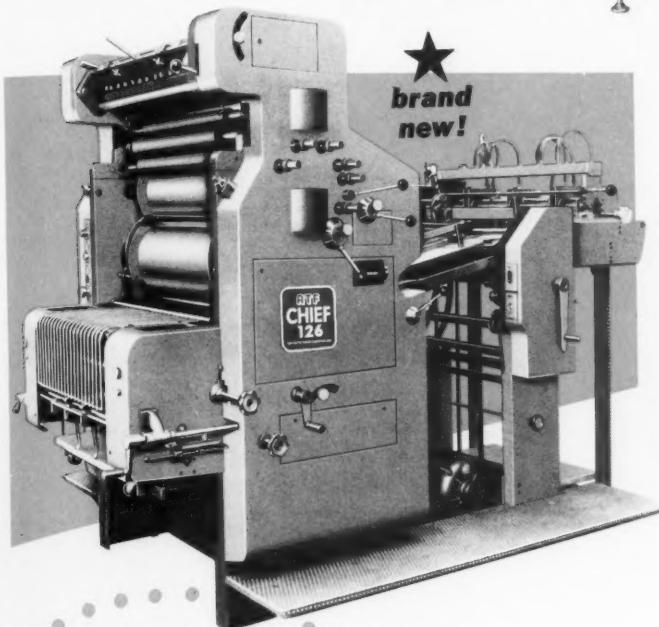
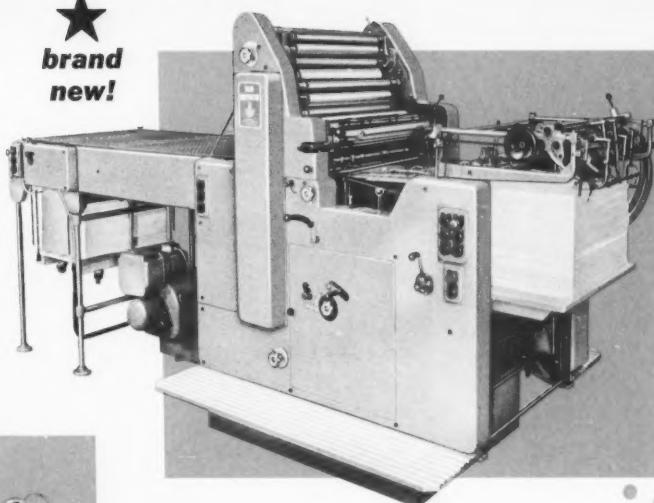
ATF

ATF-SOLNA 24" PERFECTOR

Produces up to 12,000 impressions per hour.

What a profit potential you have in this brand new ATF-Solna 24" Perfector—an offset press that prints both sides of the sheet at once, at speeds up to 6,000 per hour (the equivalent of *double* that amount on a non-perfectoring press!). You'll have great success with this press on such jobs as letters, sales literature, short-run editions of books or directories. It prints one color on both sides of sheets up to 18x24½"—the same color or a different one on each side.

★
brand
new!



ATF CHIEF 226

Don't miss seeing **THIS** press!

The Chief 226 is the first and *only* 20x26" two-color offset press on the market... and opens new opportunities for profitable color printing, including process work. *Speedy?* The Chief 226 operates at speeds up to 8,500 sheets per hour which is the equivalent of 17,000 IPH for a single color press! The Chief 226 handles the same sheet sizes and prints with the same complete coverage as the Chief 126. New cam-controlled swing arm feed mechanism provides positive sheet control for hairline register. Stream feeder sets new standards for efficiency and ease of adjustments. Four ink form rollers and two dampener form rollers are all adjustable from outside the press frame. Suction slow-down rollers provide full sheet control in the delivery at the high operating speeds of this press. A fast rise mechanism reduces time required to change delivery trucks. Also, all of the other features of the Chief 126 are included in the 226.

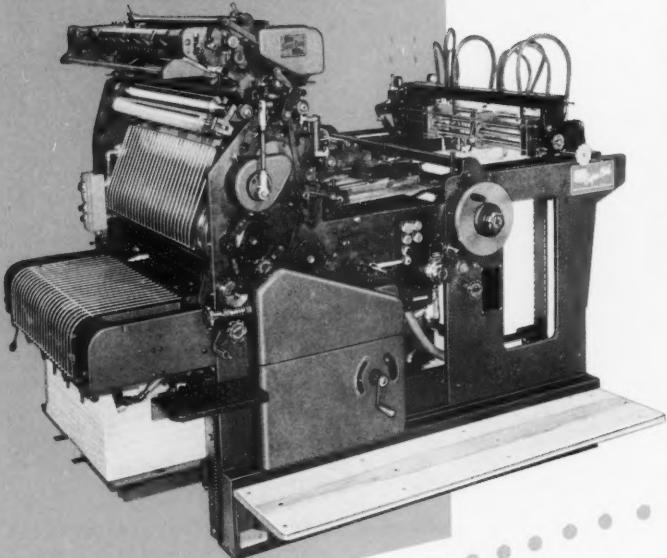
ATF CHIEF 126

8,500 impressions per hour! That's the operating speed of the Chief 126. When you look it over at the Coliseum, you'll see why this versatile press is the talk of the industry. The Chief 126 takes sheets up to 20x26", with a maximum printing area of 19½x25½" (thus permitting 9x12" bleed work four-up, with room to spare). Feeder is double-loading floor type. Swing-arm mechanism insures hairline register even when feeding at high speeds and during long runs. Ink and dampener form roller settings are made from outside press frame. *Wait until you see this all-new high speed press.*

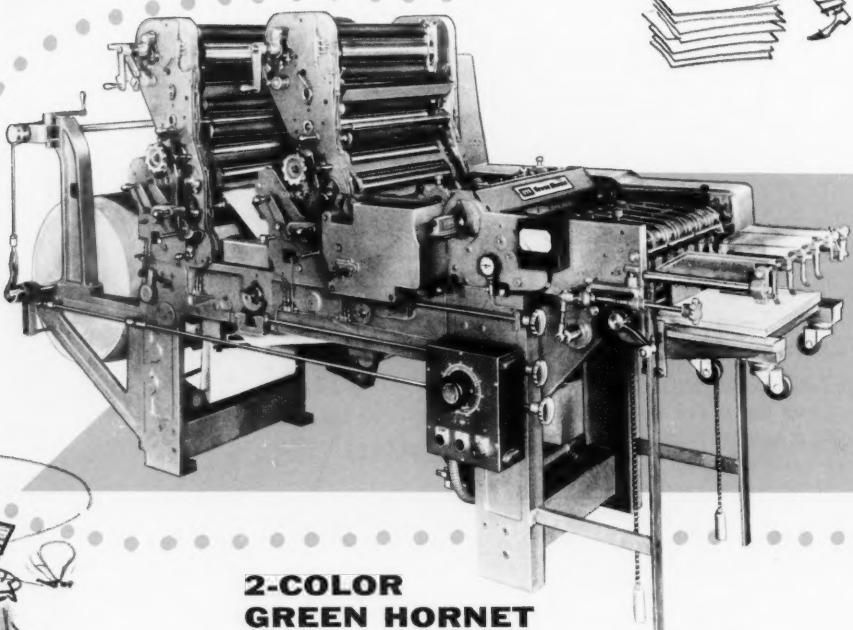
★
brand
new!



ATF SUPER CHIEF



Speeds ranging from 3,000 to 7,000 IPH... capacity for a wide range of sheet weights and sizes...make this deluxe 23x30" offset press one of the most versatile in any shop. It is compact...features a combination sheet and stream feeder for maximum flexibility, a sheet blow-down for better control of sheets delivered at high speeds, pull side guides with double register wheels and all the other advantages which make ATF Chief Offset Presses so easy to operate and so profitable to own.



2-COLOR GREEN HORNET

Two colors on one side...one color on each side (or two colors on both sides of a half-width web)—at 30,000 sheets per hour! This 11x17" web offset press "eats up" standard-size printing jobs. Such pieces as: advertising folders, direct mail letters, letterheads, place mats, shopping guides, simple business forms, instruction sheets, menus, programs, package inserts and catalogs. You print from rolls of paper...any uncoated stock suitable for offset, from 12 lb. bond to 80 lb. When printing on one side only, stock up to .007" thick may be used because the web of paper travels straight through the two printing units. Reloading is fast and easy. On typical 8½x11" two-color jobs, you can slash basic costs from 25 to 75%. The ATF Green Hornet is also available in three and four-color models. Ask about them at the ATF exhibit.



ATF WEB-FED PRESSES

ATF Business Forms Press

High printing speeds, plus open, accessible structure for easy operation...are featured by ATF-Webendorfer Business Forms Presses. All operations are handled from floor level. All controls are in easy reach for fast, simple adjustments. The presses are available with either offset or rubber plate printing units—or a combination of both. A variable-size rubber plate forms press is available, with 14" to 26" circumferences by 26½" web width. In the ATF Zig Zag Cylinder Folder (optional), the paper is under positive control at all times to insure accurate, straight folded packs. One of these presses will be demonstrated at the ATF exhibit.



ATF Publication Press

With flexible ATF publication presses—you can handle many color combinations and signature sizes. Special features of this press spell out high production on a variety of jobs: newspapers, magazines, catalogs, books. This press will not be shown at the Exposition. But we have arranged a special display panel at the ATF exhibit to give you the details.

If you operate rotogravure presses, be sure to see the money-making, money-saving ATF Rotogravure Cylinder Proof Press that frees presses for full time production runs.



ATF NON-OFFSET EQUIPMENT



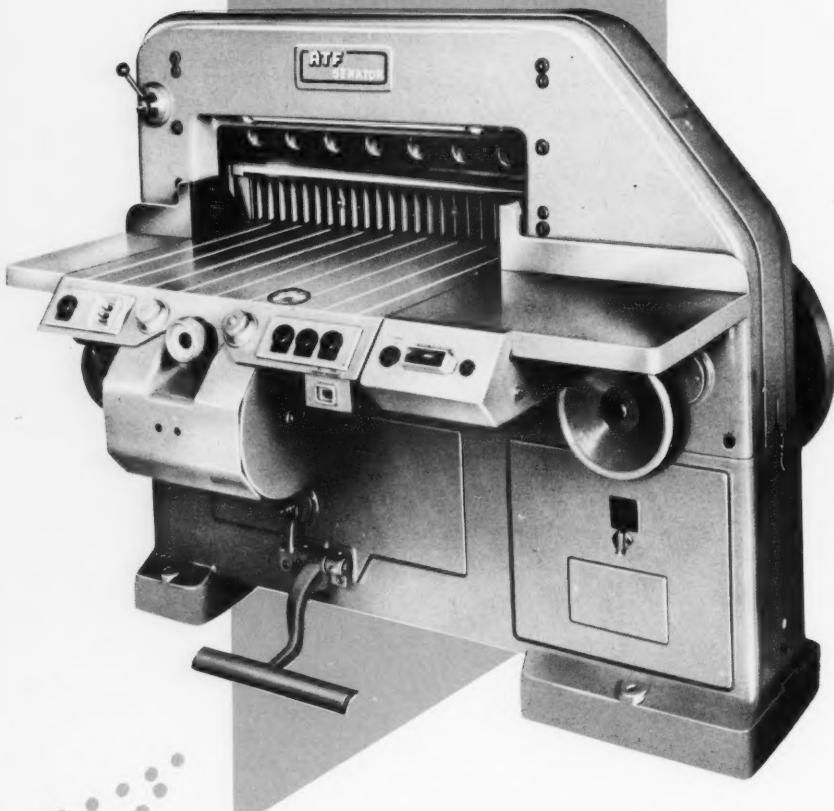
Liquid or powder—you get the same positive non-offset control with either ATF Flo-Mix or Liqua-Spra systems. Both of these units let you run more sheets per pile; simplify handling of varnish, gloss ink and metallic ink jobs; speed jogging and binding operations.

ATF Flo-Mix Dry Powder Units: operate with very low air pressure...patented powder agitation system insures uniform spray.

ATF Liqua-Spra Units: genuine air cleaner...low pressure head...individual tripping groups...fingertip control...entirely corrosion free.

★ brand new!

LOW-COST ATF SENATOR CUTTER WITH ELECTRONIC SPACING



Many printers who may not have previously considered a *cutter-with-spacer* will now be able to have a completely modern cutting operation for the first time. The ATF Senator is offered in three models: 32 (32 $\frac{1}{4}$ "); 42 (41 $\frac{1}{4}$ "); and 52 (52"). All three are available with simplified electronic spacing. Field tests have shown that the ATF Senator's precision spacing is accurate to within .002 inch. The spacer is set very quickly and easily, and controls the back gauge electronically by signals which are push button-recorded on magnetic tape. All controls are on a single panel. The cutter is easily handled by any qualified operator after brief instruction.

In New York, ask about a fourth model of the ATF Senator Cutter to be unveiled in the next few months.



ATF TYPESETTER

For setting text and tabular matter photomechanically at low cost there's nothing like the ATF Typesetter. This system consists of two compact, easy-to-operate machines: a Keyboard Unit and a Photographic Unit. The end product is positive film or photographic paper ready for use in making offset, letterpress or gravure plates. Use it to turn out text matter for advertising, catalogs, newspapers, books, price lists,

statistical material. Copy is typed on the Keyboard Unit which produces a perforated tape with justification coded in. The tape automatically operates the Photographic Unit. A wide variety of type faces is currently available, and new ones are being added constantly.

See for yourself how easily and simply you can set text and tabular copy with the ATF Typesetter.



ATF

ATF FOUNDRY TYPE

Modern typographic design is the theme of ATF's Foundry Type Division display—emphasizing design *with* type as well as design *of* type. You will see outstanding specimens showing many of ATF's faces in use...in brochures, direct mail pieces, advertisements, magazines and other forms of printed communications. The newest ATF type faces, such as Craw Modern and Craw Modern Bold, will play an important role; but the "old faithfuls" also will be well represented. The infinite care and craftsmanship which go into the design and manufacture of ATF's Foundry Type will be shown, step-by-step—dramatic proof of the superiority of products from the world's largest type foundry.



Craw Modern

Craw Modern Bold

Craw Clarendon Book

Craw Clarendon

ATF-HADEGO PHOTOTYPESETTING MACHINE



Companion piece to the ATF Typesetter, the ATF-Hadego Phototypesetting Machine is a photographic system ideal for setting display, headlines, borders, etc. In common with the Typesetter, it is also low in initial cost, simple to operate and is capable of producing highest quality composition. A single font of matrices gives you a complete range of sizes—from 4 to 34 points, or from 10 to 82 points. Over 150 different type faces are available...and mats can be supplied "right reading" or "reversed image".

The ATF-Hadego Phototypesetting Machine and the ATF Typesetter make a great team. See them both in action.





If you are unable to attend the Graphic Arts Exposition in New York we will gladly send you detailed information and specifications on the new ATF Chief 238 and any, or all, of the ATF equipment displayed.

Simply write American Type Founders at any of the following addresses:



American Type Founders · 200 Elmora Avenue · Elizabeth, N. J.

Branches

ATLANTA, GEORGIA · 728 Spring Street N.W.	Trinity 3-1663
BOSTON 10, MASSACHUSETTS · 273-285 Congress Street	Liberty 2-8625
CHICAGO 6, ILLINOIS · 519 West Monroe Street	Franklin 2-1188
CINCINNATI, OHIO · 20 East 9th Street	Cherry 1-2037
CLEVELAND 14, OHIO · 1530 East 19th Street	Main 1-1787
DALLAS 2, TEXAS · 604 South Akard Street	Riverside 2-8701
LOS ANGELES 15, CALIFORNIA · 1314 West Ninth Street	Dunkirk 5-2173
NEW YORK 14, NEW YORK · 200 Varick Street	Oregon 5-8910
PHILADELPHIA 7, PENNSYLVANIA · 207-209 North Broad Street	Locust 7-0470
SAN FRANCISCO 2, CALIFORNIA · 360 Golden Gate Avenue	Graystone 4-0262
ST. LOUIS 3, MISSOURI · 1931 Washington Avenue	Chestnut 1-2757

In the Rocky Mountain States:

A. E. Heinsohn Printing Machinery and Supplies

DENVER, COLORADO · 1443 Blake Street	Tabor 5-8251
ALBUQUERQUE, NEW MEXICO · 5231 Central Avenue West	Chapel 3-9581
PHOENIX, ARIZONA · 1828 West Jefferson Street	Alpine 2-3905
SALT LAKE CITY, UTAH · 246 West First South Street	Elgin 9-7641
EL PASO, TEXAS · 416 North El Paso Street	Keystone 3-1780

ATF Type Faces used in this brochure:
Heads: Franklin Gothic and Franklin Gothic Wide.
Body Copy: Century Expanded.



REPRODUCED IN 4 COLORS BY OFFSET LITHOGRAPHY ON SPRINGHILL VELLUM-BRISTOL, BASIS 67 (22 1/2 X 28 1/2). SHEET SIZE 39 X 58. PRINTED 16 UP AT 4,000 IPH.

Give you any good ideas for fixing up your patio?

This faithful reproduction of a photograph by Paul Dome is printed on Springhill Vellum-Bristol, one of America's new *first family of fine papers* by International Paper. →



Your good printing—on our good International Papers— can bring new products to millions in their own homes

THIS INSERT, printed on new Springhill Vellum-Bristol, is proof of the beautiful results you can achieve with this 100% bleached sulphate sheet.

Notice its brilliant clean-white look. Its glare-free qualities. Its great strength. Its bulk vs. weight ratio. Then expect to be

surprised by this paper's economical price!

Leading printers find that Springhill Vellum-Bristol is ideal for letterpress, offset-lithography and silk-screen printing. Now available in improved white, plus six attractive pastel colors, Springhill Vellum-Bristol is made to order for menus, covers,

die-cut cards, magazine and catalog inserts, direct-mail pieces—any job that must combine *quality, versatility and economy*.

Ask your paper merchant for samples of Springhill Vellum-Bristol and information about the other printing grades in our new *first family of fine papers*.

Fine Paper Division **INTERNATIONAL PAPER** New York 17, N. Y.

75 million Items processed annually on DUAL-LITHS

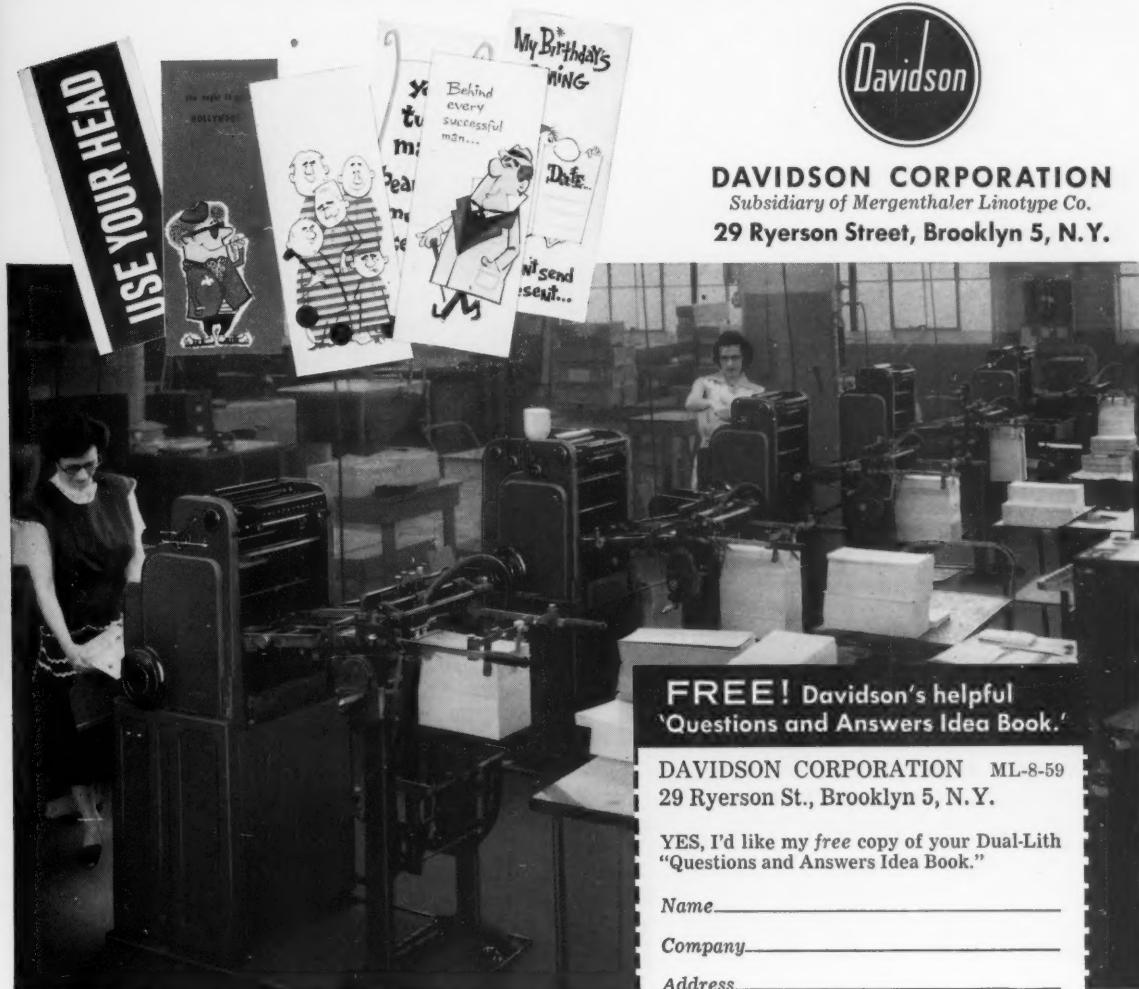
A giant in the greeting card industry, American Greetings Corporation turns out 2½ million greeting cards daily . . . ranging from simple black and white to delicate 5-color work on satin. Here, in their own words, is why DUAL-LITHS were picked to do part of the job!

"Quality is the prime ingredient in a greeting card. Yet in this competitive field, cost-consciousness is an unavoidable fact of life. American Greetings Corporation found the answer in fifteen Dual-Liths (models 221 and 241). They are used for conventional offset printing, thermography, and spangle application,

using inks, ink bases, or adhesives. Other Dual-Lith operations make use of type, rubber plates and Linotype slugs. Because of the enormous versatility and speed of these machines—even short runs are economical and easy. A complete switch from offset to letterpress takes less than a half hour!"

Another thing: "Maintenance of these Dual-Liths is very low," says Al Prokupek, head of the press department. "Some of the Dual-Liths run on a 2-shift basis—with no breakdown problems!"

Small wonder why American Greetings is so sold on Dual-Lith. You will be, too, when you see it. Why not arrange to do just that? Just call your local Davidson Distributor—or drop us a note—today!



Partial view of installation of 15 Dual-Liths at American Greetings Corporation.



DAVIDSON CORPORATION

Subsidiary of Mergenthaler Linotype Co.

29 Ryerson Street, Brooklyn 5, N.Y.

**FREE! Davidson's helpful
'Questions and Answers Idea Book.'**

DAVIDSON CORPORATION ML-8-59
29 Ryerson St., Brooklyn 5, N.Y.

YES, I'd like my *free* copy of your Dual-Lith
'Questions and Answers Idea Book.'

Name

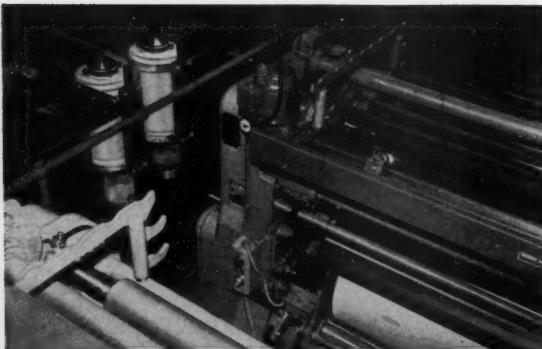
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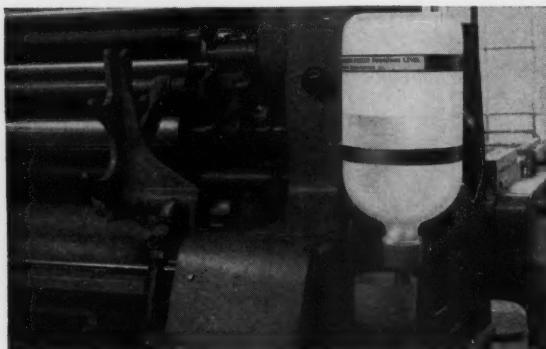
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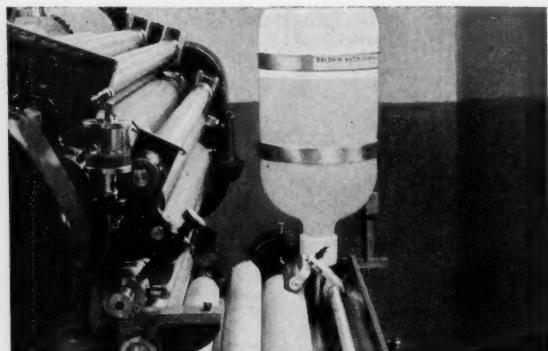
how lithographers solve water problems...



This Harris 23 x 36 2-color press has #2 Baldwin Water Levels and Baldwin Roller Water Stops, the ideal companion for the Water Levels because they eliminate floods and dry-ups that cause so much trouble when running short sheets. The Water Stops you see here are for use with cloth-covered rollers. For rollers without cloth sleeves, Baldwin Variable Control Water Stops are recommended.



Here's a Miehle 61 2-color offset press equipped with #5 Baldwin Water Levels. The pressman has the advantage of a constantly "metered" supply of fountain-solution that helps him maintain the proper balance of ink and water. And he never worries about the loss of washed-out sheets that too often result from filling the fountain by the old-fashioned bucket-brigade method.



Here's a Miehle 41 2-color offset press with #2A Baldwin Water Levels. The unbreakable polyethylene reservoir keeps the water free of airborne contaminants and makes it possible for the pressman to check his water supply at a glance. What's more, the automatic non-spill valve eliminates the sheet-spoilage caused by water spills when the fountain is filled manually.

Water is the nightmare that haunts any lithographer's every waking hour. Unless you control water, you can't control costs and quality. And, your own experience proves, haphazard attempts at water control mean *more* problems... *higher* costs.

Quality-conscious lithographers use Baldwin® Water Levels to *stabilize* fountain settings and help maintain the right balance of ink and water... to help give them far better control

over both costs and quality. You see, Baldwin Water Levels maintain fountain-solution level constantly, *automatically* to put an end to floods, dry-ups, and spills.

Yes, you *can* do something about water-problem nightmares! Write today for information on equipping *your* presses with Baldwin Water Levels. Be sure to send us the make, model, and size of your presses.

WILLIAM GEGENHEIMER CO., INC. 80 Roebling Street
Brooklyn 11, New York
Phone: Evergreen 8-5610

Manufacturers of Baldwin Ink Fountain Agitators • Baldwin Press Washers • Baldwin Water Stops • Baldwin Water Levels

for a

better impression...



Use fine-quality Wausau impression papers

As our "Wausau Paper Doll" can tell you, making a good impression in *print* takes good impression *paper*. Wausau Impression Papers give text and art a new crackling clarity, a high-fidelity reproduction that mirrors fine detail and color. Their distinct quality is the product of years-ahead research, family craftsmanship, modern manufacturing and control methods. Write today for samples of Everest Text, Wausau Text and Brokaw Opaque Offset!



FREE—"AMERICA ON PAPER" Write on your letterhead for "America on Paper", a 16-page book illustrating documents and papers that made American history.

59
Wausau Bond • Wausau Mimeo Bond • Wausau Duplicator • Wausau Ledger • Exact Bond • Exact Mimeo Bond • Exact Duplicator • Exact Ledger
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Artisans of Fine Papers

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IMPRESSION PAPERS

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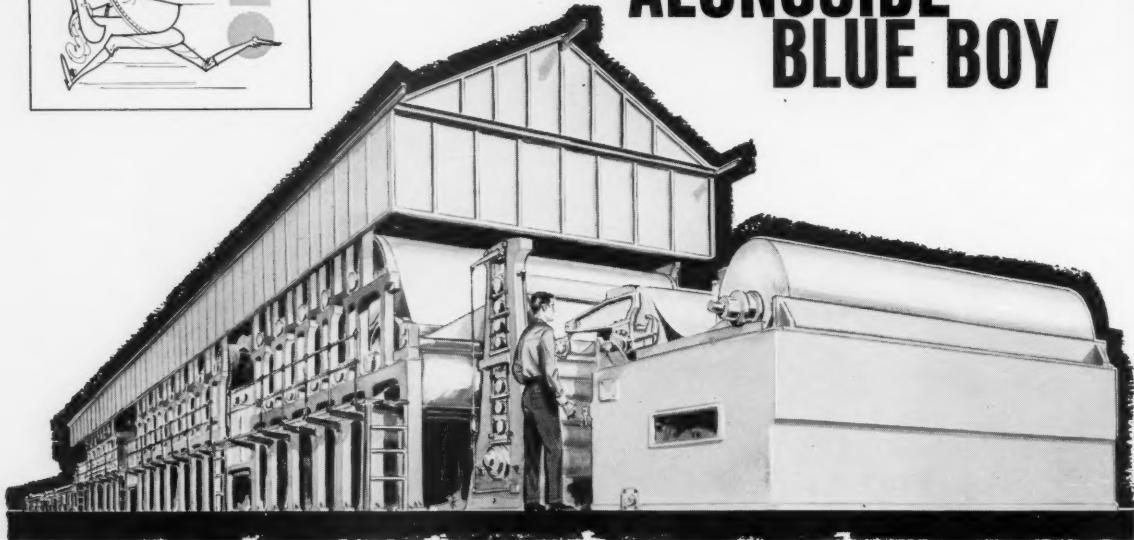


ASK YOUR STATIONER OR WRITE FOR SAMPLES

WHAT'S
THAT
RUNNING
ALONGSIDE
BLUE BOY?



HERE'S WHAT IS RUNNING ALONGSIDE BLUE BOY



SHE...HE...OR IT IS THE NEW GILBERT NO. 2 PAPER MACHINE...

NOW RUNNING IN FULL PRODUCTION...AND NEEDS A NAME!

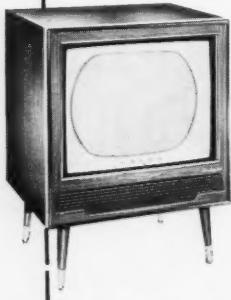
...You Can Win a Color Television...

Blue Boy may be a painting by Gainsborough to some people. To us it's our No. 3 paper machine. Blue Boy isn't dry behind the ears yet. That is as paper machines go. He's only five years old... and already there's a brand new paper machine running alongside him. This new paper machine replaces our old No. 2.

Now, when you go through giving birth to a

paper machine, you feel the youngster deserves a proper christening. But, like a lot of parents, we can't decide on a name! That's where we thought you might want to help. Just send in your suggestion (or more than one if you wish) for the name—you could be the winner of a handsome 21" RCA color television set, Model 21CD877.

GILBERT PAPER MACHINE NAMING CONTEST



Simple Rules: There are no box tops...no rhymes...no puzzles...simply submit a suggested name for our new No. 2 paper machine by letter; post card; or use the handy coupon at the right. Entries must be post-marked before contest close, midnight, September 15, 1959. Decision of the judges will be final. In case of a duplication in entries for the winning name, the one with the earliest post-mark will be the one selected.

Clues: In comparison with other paper machines in our industry, our new No. 2 paper machine is long...almost 300 feet, yet reduced in size by 15 dryers due to incorporating a new principle of drying with high velocity, high temperature air. It is fast...speeds up to 600 feet per minute. It is a Fourdrinier-type machine with a breaker stack, horizontal size tub, and makes our heavy weight papers, such as ledger and index. It is painted gray.

Advertising Department
Gilbert Paper Company
Menasha, Wisconsin

Gentlemen:

I suggest the following name(s) for the new Gilbert No. 2 paper machine:

My name is: _____

Firm: _____

Street Address: _____

City: _____ Zone: _____ State: _____

GILBERT PAPER COMPANY • MENASHA, WISCONSIN

EDITORIALS

Where Can We Go But Up? . . . Down!

THOSE printers and lithographers who had convinced themselves that profits in our industry had definitely and finally reached the irreducible minimum received yet another jolt last month when preliminary statistics on the PIA Ratio Study answered with some finality the question "Where can we go but up?" The answer, sad to say, is *down*.

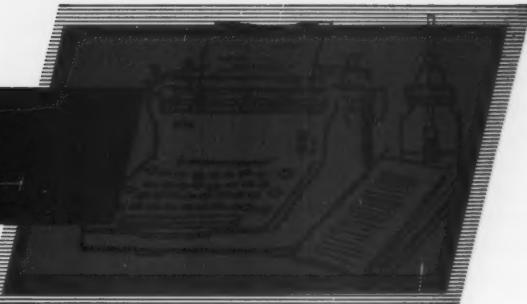
The Printing Industry of America said that its study "again reflects declining profits." In a study covering 856 firms and \$595,000,000 in sales, profits on sales after taxes, based on corporate reports, is 2.68 percent, a continuation of a downward trend of many years, and this in the face of a 2.34 percent increase in sales!

Things look bad for letterpress and lithography alike, although the report indicates that companies which are predominantly letterpress "show a slightly better increase in sales and a slightly better profit picture."

There is a bright note in the picture, however, in the form of companies which *are* making money: 180 firms showed a profit on sales after taxes of 5.90 percent.

But when are the other 676 companies going to learn the lesson that PIA, NAPL and LPNA have been trying so long to teach—that without careful planning, an exact knowledge of costs in every department, and a thorough analysis of the entire company operation—no printer or lithographer can ever make more than token profits, and in fact, will inevitably slide even further down the already dangerously sloping profit curve?

All three associations have valuable services available to members that can go a long way toward steering a faltering company in the direction of greater profits (or keep a successful company headed that way) but apparently many companies are too busy cutting prices and taking on jobs for which



their shops are totally unsuitable to take advantage of these services.

Obsolete equipment, old-fashioned methods and a refusal to face facts make a sure-fire formula for going out of business.

On to New York

NOT since the World's Fair, some 20 years ago, has there been so much enthusiasm in New York for an exhibition, at least among the graphic arts fraternity.

The show causing all the furor, of course, is the Seventh Educational Graphic Arts Exposition, set for the Coliseum, Sept. 6-12. Advance reports on some of the nearly 200 exhibits indicate that the show should be well worth the trip from any part of the U. S. or Canada. A fair sized contingent of printers and lithographers from other lands is expected as well.

As if that wouldn't guarantee a crowd in New York City, the Spectra show and the annual conventions of PIA and the Craftsmen plus 11 other organizations, should provide the extra push.

(Continued on Page 116)

Quotes of the Month

"The already existing skilled labor shortage plaguing the printing and publishing industry will be further aggravated by the increasing competition of other industries for available manpower. Employers must make their plans now to recruit, select and train the employees they will need in the next few years in the same way as they plan ahead for their building, equipment and financial needs."—Leslie C. Shomo, president, Education Council of the Graphic Arts Industry.

WE are dun-colored birds in mid-America—the sparrows of the lithographic family. North, east, south and particularly west of us the plumage is much gayer, brighter and more brilliantly colored. Apparently, we are scared of anything that is new, exciting and different. We don't design or produce color and we don't know how to merchandise it. As a consequence, the production of hundreds of thousands of dollars' worth of color lithography is being taken out of middle American shops to be produced in other sections of the country.

How can other areas raid the middle west in this vital industry? Can they produce for less and consequently undersell our market? This is not borne out by the facts. The rate of pay for multicolor pressmen is lower in Chicago, Cleveland and Milwaukee than it is in San Francisco, Los Angeles or New York.

In the past five years, 79 web-offset press units have been installed on the Pacific Coast. These were mostly two or more colors, 23 x 35" size or larger and represent an increase of 600 percent in West Coast lithographic equipment. East Coast cities showed increases of 168 percent in lithographic volume; West Coast cities had an increase of 150 to 155 percent—southwest cities had a like increase. Some middle-western cities showed an 85 percent increase and others only moderate gains or, like Detroit, small decreases. New York and California now surpass Illinois by several hundred in the number of plants producing lithography. Oregon has nearly as many offset plants as Ohio. Texas has more plants than Massachusetts or Michigan.

We Are Not Making the Grade

In our central location, close to sources of supplies, we should have the advantage over the southwest and the Pacific Coast. But for some reason, we are not making the grade.

Chicago, Cincinnati and St. Louis used to constitute a terrific triangle of talent in the graphic arts field. Later, a vigorous and colorful contingent from Milwaukee and Minneapolis-St. Paul competed in excellence of design and color in the lithographic arts.

Now, all of a sudden we look up and say "what happened?" Is it possible that customers are willing to pay

higher prices, plus freight for creative design and good color work from other sections of the country because they cannot get what they want in the middle west?

Who is to blame for this retreat into mediocrity? Is it the docile decline of our once vigorous lithographic designers into the lethargy of leisure?

Do you sell lithography by looking at the other fellow's work and saying "We can do as well as that!" or "This is just a routine color job—" Are you just taking orders rather than creating them? Has your company sunk into the habit of merely matching the commonplace?

What about color and design? In Chicago there are 253 artists and illustrators in a group called Artists Guild of Chicago. There are as many more artists who belong to no group. There are good commercial art schools in the Chicago area who do their best to arouse interest in color and design but they admit that there are more opportunities for a "mechanical" man in the art field than for a man who originates designs and tries to put over colorful ideas.

Artists Tied to Layout Desks

Artists in Chicago who have enough talent to have had one-man shows in the galleries, are tied to the layout desk or spend their waking hours "keylining" four-color process work being produced from camera shots.

Now that the camera is so versatile and photographers have become so expert, what can the artist do to keep his place in the graphic arts picture? He can *think* and he can *design*—two things which no camera can do. We can all see things as they *are* but what we need to raise our aspirations and to give us inspiration are pictures of things as they might be. These things can only be done by people with creative skills. But there must be a market place for such skills. We are not supplying an outlet for our storehouse of talent. There seems to be only one reason for this: *We haven't been getting off our fannies long enough to sell color.*

It is not as simple as it sounds. First of all, you must have salesmen. Where are you going to get them? There must be few available, if purchasers of printing are to judge. Ask the next 10 purchasing agents, outside the



MEDIOCRITY ***in the Middle West***

By *F. E. Brougham*

Chicago

immediate business section of your town, how long it has been since a salesman called on them to try to interest them in lithographic work, color or otherwise.

In Chicago, for instance, only three out of 12 purchasing agents questioned had seen a salesman of lithography in the past 10 years. And in the loop area of Chicago where you would normally expect to find swarms of salesmen for lithography, one travel tour company confided that even after they called local litho salesmen to come and see them, no one appeared. Consequently an order for thousands of colored postcards is now being produced for them in San Francisco.

Poor Showing in Exhibits

When color and design are not sold, nor a demand created for them, art itself soon becomes lifeless and colorless, and when that happens, it affects us all. If you do not believe that this is so, consider printing in general. In a recent show of Chicago Printing Design at the Art Institute, there were 86 entries representing only 41 Chicago companies and seven out-of-Chicago companies, including two from the far west and one from the far east. Color, other than one, in addition to black, was noticeably absent. Fresh design was negligible.

In the same Art Institute, at the same time, there was an exhibit of Chicago area artists—183 paintings. Of these, *only 38 had noticeable color!* And as for design, abstracts dominated all else by 80 percent.

The national graphic arts industry organizations are trying to encourage the development of new designs and new ideas through contests in the direct mail and packaging fields. Of the 286 awards for outstanding lithography in the 9th Lithographic Awards Competition & Exhibit, sponsored annually by the Lithographers & Printers National Association, only 80 were won in the vast middle western area and these 80 were produced by only 49 companies.

In the Folding Paper Box Association's annual contest to select cartons showing "technical superiority of lithography," an eastern and a western company tied for first place, and the other awards were made to other eastern and western companies—no middle western company even won recognition. If you believe this is true only of contests and exhibits, notice how few of the letterheads which come from the midwest have any color at all in them. Out of 25 letters received at one executive's desk from one day's first mail, 23 were letters from the middle west. Only *one* had any art work or color, other than a thin red rule as a decoration.

Of the second and third class mail which goes across an executive's desk in one day, how much is saved, how much destroyed, before he sees it? Obviously even an envelope marked "personal" on which his name is misspelled, never reaches him unless his secretary knows he has some expressed interest in what is being advertised. But you *can* count on him seeing every attractive bit of color work because it is "too pretty" to throw away, or it "seems too important" or "believe the boss would like to see it."

Lithographers in the mid-west are the "sparrows of the lithographic family," F. E. Brougham declares in her forceful indictment of the scant use of color in work done in the area around Chicago. Miss Brougham, who is an officer of the Women's Advertising Club of Chicago, as well as advertising manager of Ideal Roller & Mfg. Co., emphasizes that the views are her own. She admits that her assertions are controversial, "but a good hot controversy may be just what we need to arouse us."

What do other readers (in or out of the mid-west) think about the subject of creative color lithography?

It used to be that every hotel, club and social organization promoted its social affairs through clever mailings on colored announcement stocks. In fact, one paper company had advertising campaigns year after year promoting the use of its papers for these announcements. Do you know that today you cannot buy colored announcements and envelopes in Chicago? Only plain white is carried in stock. The colors have been discontinued because "there is no demand for them."

Market in Letterheads, Menus, Posters

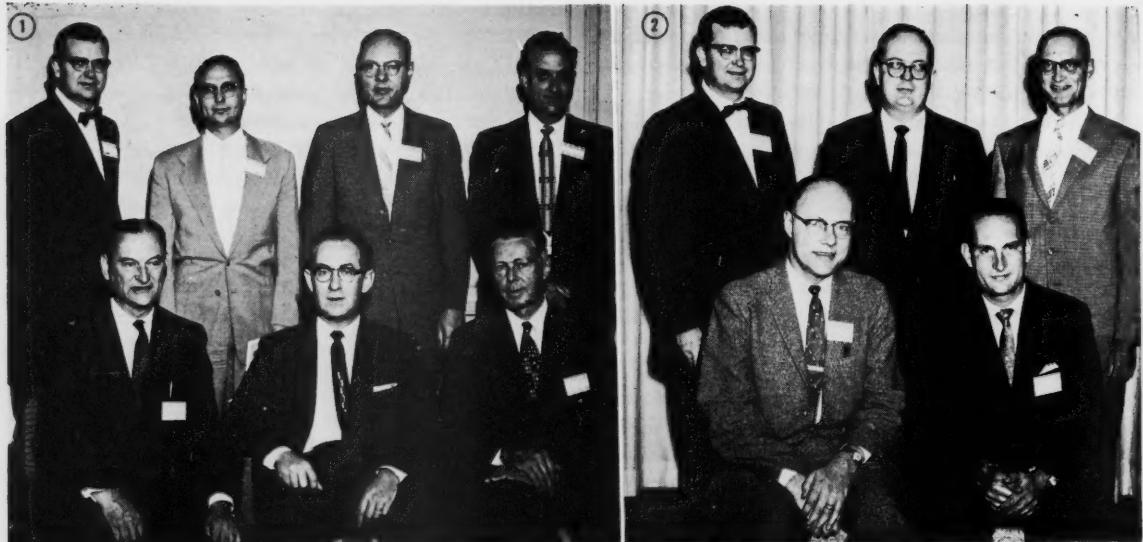
Note, too, that old conventional designs still are used on most letterheads. It is difficult sometimes to get these things changed. Often *some* members of an organization are willing to modernize and all they need is outside help from a designer or lithographer to enable them to convince their own management that it is time to color up.

Look at the restaurant menus. Aren't most of the ones offered to you soiled red leatherette folders with the restaurant name in black and gold? Personally, I feel that I am going to enjoy a fresh, tasty, clean dinner when I am handed a bright colored menu that was made for daily distribution. Only a few of the larger hotels in Chicago and Detroit have colorful menus; Milwaukee is more fortunate—there are several more there who believe in color. At least the covers of these menus could be lithographed.

How about travel posters? The biggest business in centuries is struggling along in the mid-American area, using sales folders of one or at most, two colors. In design they are about as stimulating as a post-office "Wanted" circular. Compare these with the exciting designs and colors of the foreign-produced travel folders now appearing everywhere.

It is very doubtful if anyone devoid of ideas ever spent time learning commercial art. Our excellent commercial art schools insist upon originality even in exercise work from their students. All along the line such students are encouraged to think, devise and execute original ideas. They come out of these schools pledged to produce original ideas. But, instead of being consulted on matters which have taken years of study to

(Continued on Page 118)

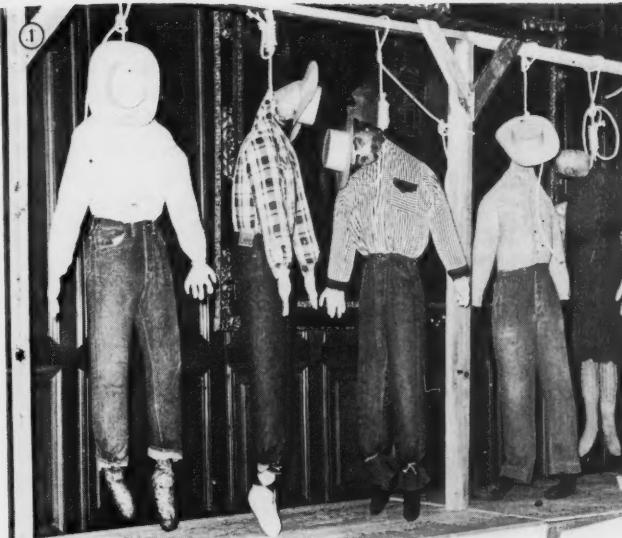


Scenes at TAGA Meeting

ONE OF the most successful conventions in years was the way many technical men termed the recent Technical Association of the Graphic Arts meeting in Rochester in June. Too late to go with last month's complete report (July ML, page 35) were these photos taken at the Rochester convention.

1. TAGA Officers: Front (l.-r.)—Frank M. Preucil, outgoing president; Philip E. Tobias, new president; and Cyril A. Horton, secretary-treasurer. Rear (l.-r.) Warren L. Rhodes, 2nd vice president; William C. Walker, 1st vice president; and Roy W. Prince and Frank Ireland, both directors. 2. Speakers: Seated (l.-r.) Mr. Prince and F. R. Clapper. Standing (l.-r.) Mr. Rhodes, J. Todd McLane and J. W. Gosling. 3. Harvey F. George and William T. McCann. 4. New president Tobias (left) presents certificate of appreciation to retiring president Preucil. 5. Speakers: (l.-r.) Alf Arnamo, Sweden; G. M. W. Laseur, Netherlands; and R. E. Maurer and W. H. Banks, both England. 6. Some family groups at TAGA.





Rootin' — Tootin' S. W. Clinic

IT WAS a fast-ridin', rough-shootin', hard-drinkin' affair, that Southwest Litho Clinic at the Hotel Adolphus, in Dallas, late in June. Here are some scenes in the Western Saloon and thereabouts, taken at the well-attended show, sponsored by the Dallas and Houston Litho Clubs.

1. Litho Troublemakers get what they deserve in the Adolphus lobby. 2. See what the boys in the back room will have. Scene in the Western Saloon. 3. Jack Herman, alias Dr. Franz von Heidelmann. 4. Tough hombres enter the saloon. 5. Henry Phillips, Glenn Smith and Charles Beddoe, all of Dallas. 6. Singer Claire Stewart (left) with Dallas Litho Club president A. G. and Mrs. Copeland. 7. Troubleshooter Eddie Deever, clinic chairman, gets his man. Eddie drinks nothing stronger than sarsaparilla.



Cincinnati lithographer tells of the planning, problems and eventual success in

'Our First Year with Web-Offset'

By Murray J. Monse

Rosenthal-Kaufman Lithograph Co.

IN the summer of 1956 our company was producing, among other things, approximately 225,000 copies of an insert for a national magazine. This was a regional edition, and showed signs of great potential growth. The insert varied in size from 32 to 48 pages, and by using two sheet sizes and minor changes in imposition, we were able to produce, economically, 32's, 40's or 48's as needed.

Our offset equipment at that time consisted of a pair of 53" sheetfed perfectors. These presses were fully capable of producing the required work on schedule and to the client's satisfaction. Three shifts on both machines were needed, and it was a rare occasion when this schedule was not kept. Quality was better than average and, backed up by an efficient bindery with modern inserting and binding equipment, we never missed a deadline.

Delivery schedules were important, because of the fact that finished books were *not* shipped on skids. Our insert was bound directly into the national section, and mailed in single copies, bulk mail; (up to 50 copies), wholesalers bulk in cartons for transfer by trucks. These truck shipments were picked up at our loading dock by three distributors who came as far as 250 miles for their loads. When these trucks arrived, we *had* to be ready for them . . . and we were.

The magazine grew rapidly, and gradually our print order went to 300,000. We began to find it increasingly difficult to make delivery on schedule. It was impossible to ob-



Numbers on web-offset counter fly so fast it is difficult to read them. Before this happy state is reached, however, there may be many problems. (All photos by F. Knoop)

tain more time, and we saw that within six months or less we would need more of our present type of machinery, or a radically faster type if we were to continue to produce this job, let alone any of our other publications.

Sheet-fed or Web?

One answer was additional sheet-fed presses, or a roll-fed perfector. An informal survey among other lithographers doing the same type of work in other areas was made and the answer was crystal clear. The *only* unit capable of doing the job was a web-offset press.

Projecting the growth of the magazine, we felt that we would have to double the number of our sheet-fed presses, at least, and do the same for the inserting and binding departments. One web-fed press, on the

other hand, with a high speed folder, would and could match the production of all the sheet-fed machinery.

From the cost standpoint alone, it was more feasible to add the one press and dispose of all the sheet-fed equipment, and even some of the more obsolete folders.

After deciding to go to web-offset, we placed an order, in January, 1957, for a Hantscho four-unit roll-fed perfector, with a high speed folder. This period was the beginning of a long series of problems, both minor and major. Auxiliary equipment had to be ordered. Naturally, before placing the orders, we wanted to see what was available and to see it in operation wherever possible. This was accomplished and as a result a multi-stage Offen Drier was bought, along with a Reliance 60HP motor set and converter, a 60-ton water cooling tower, and a chill roll stand.

Our next decision was to select a site for the press. Of course, we had to take into consideration the best flow plan for maximum production efficiency. Our first floor was chosen, for its proximity to the auto stitchers and trimmers, where most of the work produced would go, and because of its proximity to the paper storage areas and the loading docks and freight elevators.

Consulting Engineer

A consulting engineer was engaged to oversee the mechanical details and to act as liaison between management and the various contractors who would be involved during the installation of the units. One of the more important things for

his examination was the testing of the flooring for structural strength. One printing unit of our machine weighed in at 15,000 lbs. and covered an area of only four by eight feet. Our setup involved four such units, spanning only eight by thirty feet. Quite a load for any floor to take, especially one which was only eight-inch steel reinforced concrete.

After study, it was decided that the floor would need reinforcement from below. This was done with 12" Eye beams, and 6" steel posts. A very necessary precaution, considering that the gross weight of the press was in the neighborhood of 50 tons. We tried to have as much preliminary work as possible done in advance, by having blueprints sent to us so that our consulting engineer would have specifications for the contractors drawn and bids taken and contracts awarded, subject to our approval.

We were notified by the press builder that various odd lots of parts and accessory equipment would be shipped to us by the subcontractors. We did not expect anything of a major nature to be involved. How wrong we were! Cartons, cases and skids started to arrive, by the dozen, from all over the country—control parts, motors, and all sizes and types of miscellaneous hardware.

By parcel post, Railway Express, truck and rail freight, from five to 1500 pounds, they came, and kept coming. Three areas were set up for the storage of these parts, and a chart was made up to keep track of the locations, part names, and shippers. This chart proved to be extremely valuable later on when the erectors began to call for the needed parts.

Arrangements were made with a local rigger to transfer the truck shipments (three trailer loads) upon arrival. Crates were marked for identification and were delivered to the press site as called for. We found the point of entry we originally chose had a utility conduit running twelve inches below its surface. Our engineer felt that because of the extreme weight of the printing units, any slip of the winches would send our

unit through the pavement into the conduit. We then re-opened a long-closed door which had a much more substantial base, for our unloading operation. I have mentioned all these problems to alert future web-offset buyers to possible roadblocks.

The actual erection of the machine was fraught with the usual problems, semi-crises, and minor annoyances. I'm sure that we have all run into these, even with the setting up of a 17 x 22" sheet-fed. At any rate, after twelve weeks of blood, sweat and more tears than we care to recall, the press was ready to roll.

Training Program

About four weeks prior to completion of the erection, a training program was inaugurated in our preparatory department. Our men had no experience whatever in web imposition. Our "standard" plate was a zinc surface type, and webs themselves were as strange to us as Martian spacemen. We practiced layouts of various kinds. We made up dummies by the dozen and charts of various combinations possible on our eight-cylinder press: double parallel, quarterfold and tabloid folds, with various colors located on certain

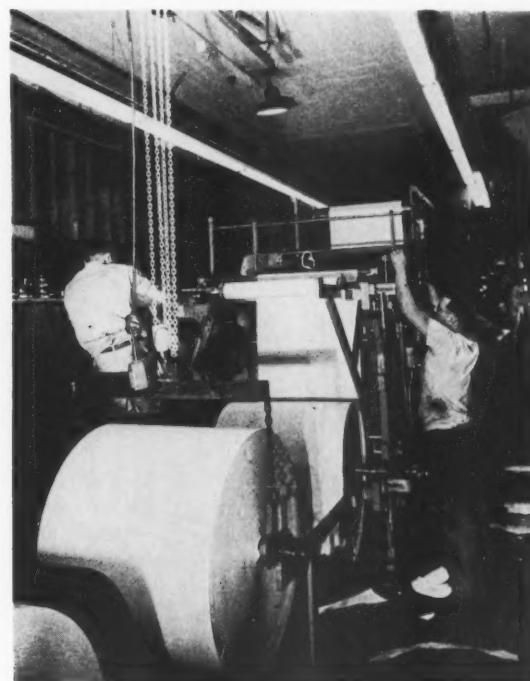
pages—16's, 32's, 48's, 56's and 64's.

We had so much practice that by the time we were called on to make our first plates for the press we were as familiar with the routine as we were with old, old friends. Plates came under the spotlight next. From our talks with people already in the web field we found the importance of effective plates on this equipment.

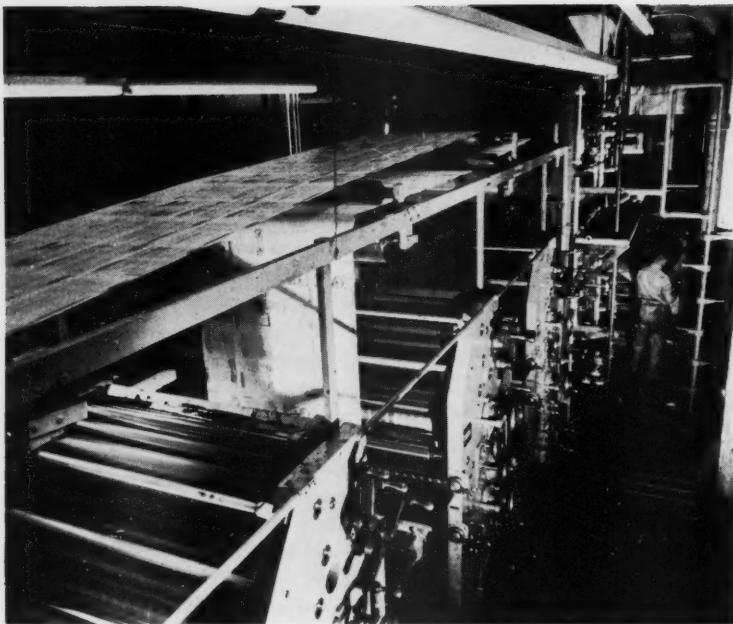
We were determined to find as foolproof a plate as it was possible to buy. Our press runs were to be medium to long, closing times were short, and we had no more time to produce the work than we had two years prior. The print order for the insert for the national magazine was now in excess of 400,000, and our other regular publications were growing at the same rate.

Testing Plates

The first plates that we made for test purposes were zinc surface. We found that these were not practical for the type of work we wanted to do. The tremendous friction generated by the speed of the machine, plus the abrasive action of the ground wood papers we were required to run, ruined the zinc plates in very



Adjusting the paper rolls on web press at Rosenthal-Kaufman.



Mile after mile of paper runs through the Hantscho web-offset press.

short order. Our next stop was aluminum. Experience showed us that although this metal is tougher than zinc, it is also more brittle, hence more likely to crack on the press, which could be a very serious and costly problem, especially at high speed. From there we went to a stainless steel based bi-metallic plate. We were told that this plate was very tough and that it could take a lot of punishment. Our first set of plates, no tests, no practice, instruction as we went, went on as a production run, successfully!

That did it, and we were on the road, at last. Incidentally, we are still using this type of stainless steel plate for our long runs, along with some grained aluminum, and some, but very few, presensitized plates. Don't get the wrong idea, these plates are not all strawberries and cream, they have their faults, but they are few. We have made and run many hundreds of them and the failures can very easily be counted.

Cracking is not a problem with these plates, except after they have been reboxed and recoppered three or more times, and then they have to be watched for signs of weakness. But I have seen too many good plates of aluminum crack up

after only 30,000 or 40,000 impressions! We are satisfied with stainless steel. Until something better comes along it will be our basic plate.

Inks and paper were next on our list for investigation. This, I'm sorry to say looks like a long drawn out job. We have eliminated some papers completely, mainly newsprints, as being too linty and troublesome and some coated stocks for various reasons such as blistering, flaking, etc. We are still looking for better and better papers to run, and will continue to do so for some time. We have tested many inks from many ink makers and have yet to be shown two or three basic blacks that will fill most of our needs. We have found some that are better than others, but these are still short of what we consider the ideal. Like Diogenes, we are still searching for an "honest" ink; one that will perform as well as the salesman says it will.

Production Planning Important

One conclusion that we have reached after a year with the "Brute," is a complete pre-occupation with production planning. This includes many things. Among them: scheduling of work in such a way as to avoid excessive press change-

overs, and following quarterfolds with half or quarterfolds, double parallels with identical folds, where and whenever possible. We try to have like colors follow each other on individual cylinders, and try to keep roll sizes and similar grades of paper following in sequence. Paying attention to these things can do much to increase production of an already highly productive unit.

One simple thing that we have found that saves much time and eliminates a large possibility of error is plate identification. We make it a standing procedure that each flat will have, stripped into the non-printing area, the position and color of the plate, whether for top or bottom unit and the exact color of the ink. This is stripped onto the short side of the plate so that it falls on the operating side of the press and is visible even after the plate has been locked into position. This is a boon on unfolioed jobs and prevents any mixup in plate position or stripping. It also helps the stripper assemble his brownprint with a minimum chance of error.

After our first year with the press, we can truthfully say that we are satisfied. Not that we are or ever will be completely satisfied with all of its work. We will still continue to strive for ever better work and production. We are optimistic about the future of web-offset. From the competitive point of view, we feel sure that we are in a better position than the non web lithographer. As more and more machines of this type are installed, our competitive edge will slowly be dulled and will be re-sharpened only by improving our ability to do more types of work better than our competition.

The web-offset field is comparatively new. It opens a whole new field of work heretofore restricted to letterpress. Improvements in press plates, papers and inks, folders and conversion techniques will allow the qualified lithographer to enter many areas in which he formerly feared to tread. We are looking forward to the day when our web press has a matching unit alongside. We hope it won't be long!★

EXPOSITION: *thousands expected to attend Coliseum show, conventions*

EVERY day brings news of some new piece of equipment or a new process to be exhibited at the Seventh Educational Graphic Arts Exposition at the Coliseum in New York, Sept. 6-12.

In addition to reports from graphic arts suppliers in all parts of the country, advance programs for many of the trade association meetings, to be held in conjunction with the exposition, have been received.

At last count, 186 exhibitors (many with several branches or divisions) were scheduled to show their wares in the huge Coliseum for the week starting the day before Labor Day. Announcements from many of the firms indicate that the show will offer printers and lithographers the most diversified show in many years.

Many Conventions

In addition to the excited last minute plans for the show, PIA, the



A. E. Giegengack

Craftsmen, the International Typographic Composition Association and several other associations have announced plans for their meetings in nearby hotels. There are 13 national organizations, in all, planning to

meet during the week, according to A. E. Giegengack, president and general manager of the show.

The executive committee and the board of directors of the Lithographers and Printers National Association will hold their fall meeting Sept. 10-11 at the Park Sheraton Hotel. On the preceding two days, the Bank Stationers Section of LPNA will hold its fall meeting in the Warwick Hotel.

Extensive coverage, including many photos, of the exhibits at the Graphic Arts Exhibition will be included in a special section of the September ML.

Following are brief notes on some of the concurrent conventions:

50 Years of Craftsmanship

Although this will be only the 40th annual convention of the International Association of Printing House Craftsmen, the association is actually in its 50th year, and a large portion of the program at the Statler Hilton will be

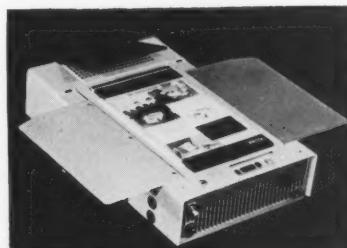
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SPECTRA 59: *many foreign exhibits planned*

A PRINTING process which may someday allow readers to hear the printed page, will be one of the unique exhibits at "Spectra 59" International Graphic Arts Exposition to be held Sept. 6-12 at the New York Trade Show Building.

The novel process, first reported in an Asian graphic arts publication late last year, is the invention of Dr. Hoshimo and two Japanese firms, Dai Nippon Printing Co. and Canon Camera Co.

In addition, Herbert P. Paschel, technical coordinator of Spectra, and Richard Pieper, promotion director, report that scores of other exhibits from the U.S. and many foreign



New Synchrosheet Unit

countries will give the exhibit a truly international flavor.

Other Exhibits

Among the exhibits will be the following: the largest German made Polar cutter, to be displayed by Gane

Brothers and Lane Co.; a complete line of presses from Czechoslovakia; a German made R.P.M. cutter, to be shown by Consolidated International Equipment & Supply Co.; and a four-unit web-newspaper press by Polygraph. Haloid Xerox will add to the international appeal by describing xerography in five languages at its booth. Henri DacQuay, France will be showing its line of process cameras for the first time in the United States.

Other American exhibitors will include Master Etching Machine, Pierce Specialties, Industrial Engraving, and Paul Anderson Co.

(Continued on Page 115)



Litho salesman with portable tape recorder (left) is greeted by printing buyer.

New aids to litho salesmen:

Portable Tape Recorders

By Robert Angus

THE Litho salesman who analyzes his selling efforts appreciates the value of time. He knows by experience that any activities — however necessary — which cut into his actual selling time are cutting into his profits. A great deal of time is consumed by salesmen in non-selling activities—making out reports, doing clerical work on calls, transcribing notes on interviews with customers, and a thousand and one primarily secretarial functions. That's why many business firms are discovering the value of salesmen equipped with portable (preferably pocket) recorders for business use. A fairly wide variety of portable recorders, operated on batteries, now is available.

Take the case of a salesman for a Midwest offset house. He owns a British-made Ficord recorder, one of the

recently developed units, which is little larger than a carton of cigarettes, and weighs only a couple of pounds. When he calls on customers, the Ficord is a necessary part of his equipment, as important to him as a sample book or an order pad. It eavesdrops on the customer's complaints, on his problems, on requests and recommendations, and finally on specifications for each new job.

Fit in Glove Compartment

These miniature recorders are small enough to fit into the glove compartment of even the smallest car or into a briefcase. Salesmen who choose not to eavesdrop (because some buyers shy away from recorders) can leave them there while they make their calls, and dictate notes when they come out of the interview.



Battery-operated recorder takes it all down, word for word, as buyer and salesman discuss complex color job.

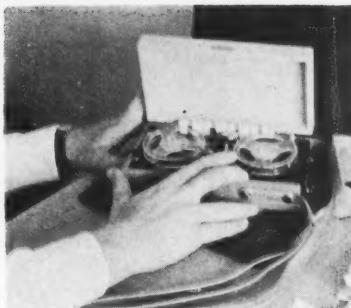
—including the name and address of the customer, when to revisit, the points discussed, and, in the case of an order, the size of the run, stock, number of colors, special problems and date of delivery. He can save time by recording this information as he drives or walks to his next call. The tapes on these machines have a potential recording time of two hours.

At the end of the day the salesman can play back the tape and transcribe his own notes for a report, or he can send the tape back to the office where a secretary can transcribe the material. Printers and lithographers using this system find it enables their salesmen to make as many as three extra calls a day, for a substantial increase in productivity. Salesmen report that not having to carry the information around in their heads all day also frees them from worry and distraction.

Do the salesmen like it? "Much more efficient than the old way of doing business," commented one salesman. "It saves me many hours of homework during the evening," said another. Reported a third, "There's less chance for misunderstanding between the office and myself this way. We find that when I record my conversations with the customer, he likes it, and the office can get a better idea of exactly what it is he wants, and of my problems trying to sell him. Most important is that I always turn over a complete report."

This can be particularly important on jobs involving complicated specifications—split runs, substitution of copy every several thousand, complicated color instructions, odd paper stocks and sizes, for example. When the customer records his specifications on tape, there's no chance for a misunderstanding. The shop can always check back either with the original recording or with a transcript of it to make sure that every detail is followed exactly.

But the place where the pocket



Tape recorder is small, easy to operate. Tapes can record for two hours.

tape recorder really comes into its own is at conventions and trade shows. Salesmen on booth duty are besieged hourly with literally scores of eager questioners, some of whom are potential customers. Salesmen using the portable recorders find that these momentary conversations can better be remembered—and followed up—when they are committed to tape. "I ask the prospective customer his name, firm, and firm address. Then he asks his question, or I tell him what our plant can do," one man who's managed to convert his convention acquaintances into profitable accounts pointed out. "The interview may last less than a minute. Yet I have all the information I need to call on him after the show."

One of the features of the tiny recorder is its microphone. Specially designed for high quality in the smallest possible size, the microphone can be held in the hand, clipped to a coat pocket, or kept out of sight behind a lapel. The customer need never see the microphone or recorder if the salesman so desires. The microphones often have a control on them which starts and stops the recording mechanism, conserving tape playing time and obviating the necessity of fussing with tape or recorder. External control knobs enable the user to turn the recorder on and off without ever looking at it.

The recorder runs on small batteries, which can be recharged almost indefinitely. The unit costs in the

neighborhood of \$300, complete with batteries, recharger and microphone. The only additional expense is the nominal one for tape and reels. Tape is reusable, so that a salesman needs only two or three reels to do his job, an expenditure of less than five dollars. Since the tape is interchangeable with that used by all other tape machines, it's possible for out-of-town salesmen to mail the reels back to the plant.

Handy on Trips

The traveling salesman knows that carrying a typewriter can be a nuisance on an extended sales trip. And if he doesn't carry his own, he'll find difficulty in many a town in renting one. The tape recorder is a convenient answer. It's there in his car, or in his hotel room, ready to go to work on a report. Some recorder manufacturers point out that their units can also be used for dictating letters while the salesman is driving, to be typed and mailed later from the office. The job requires no hands, except to turn the unit on and off. It is equally efficient on trains or places where writing or typing can be difficult.

Many litho salesmen may find it worthwhile to look into these newest tools for selling. Their multiple advantages—freeing the salesman to sell, reducing or eliminating errors, remembering details for the salesman—more than make up for their modest cost. Finally, there's the advantage pointed out by one lithographer who recently equipped his sales force with recorders: "I've taught each of my salesmen to interview their customers with microphone in hand. They say that it's a new way the company has adopted of doing business, to avoid possible mistakes anywhere along the line. It's been wonderful for us. Some of these accounts have told me at trade shows how much better our service has been since we started using the recorders."★

Reproduction to Accurate Size

By *Frank H. Smith*

Development Department, The Monotype Corporation,
Salfords, Redhill, Surrey, England

Part 3. Some Tests and Calculations

MAY I suggest that if the reader intends to follow the arithmetic explained in these articles and to confirm by working it out himself, it would be a wise plan to find someone from whom to borrow one of the many comparatively simple, hand operated, calculating machines. They are quite easy to understand and operate, and infallibly accurate if one presses the right buttons and turns the handle the right number of times. I find (and I know that I am not the only one!) that I simply cannot work out a number of six figure calculations by ordinary arithmetic without making some quite stupid mistakes, but the little "Monroe" machine which I use (of course we call it "Marilyn"!) gives the answers to at least eight figures, and so quickly that one can afford to check each stage as he goes along.

As was remarked in the previous two articles, accuracy is always a matter of degree—of the tolerance within which we are working. Probably we are all interested in just how one arranges that a camera shall give extremely high precision at any scale right throughout its size range, but for that we must have a camera which is a particularly fine piece of engineering design and construction and which can be relied upon to remain in first class adjustment for a long time, because otherwise the effort of the experimental work and calculations is not worth while.

Of course a great many such cameras are made these days, by all the reputable graphic arts manufacturers, but we must not forget the man who perhaps has a "gallery" camera—not very new, but solidly made—and who needs to get rather close accuracy only once in a while, the bulk of his work having the sort of tolerance that can be checked closely enough with an engineer's rule on the focusing screen.

Occasional Accuracy

If ours is the latter case—only an occasional close job—and the camera is not fitted with high accuracy measuring devices, such as digital counter indicators giving the distances from the lens to the image and object to the nearest thousandth of an inch, as in many modern darkroom instruments, then probably the best way of tackling the problem is to send the lens to the

makers and to ask them to determine its focal length as closely as possible.

For that purpose they will probably place the lens in a "nodal slide" and will use a "collimated" (parallel) beam of monochromatic light (probably sodium yellow), examining the image (which is situated at the focal length from the appropriate node of the lens) with a microscope. In that way a figure can be given for the focal length which is quite accurate enough for our present purpose, but in my experience (and I trust lens makers will please forgive my disrespect!) it is best to check it by actual experiment on the camera if we are adjusting a first class scale focused darkroom instrument, as will be explained later.

To consider the method of getting one particular size right let us use an example. Let us suppose that we have a job that is required to be reproduced at one quarter size within plus or minus 0.1 percent. Our camera is a fairly simple one which we will have checked for squareness as explained in the first article of this series (*June ML*), and we begin by placing the test object of fine lines and a contact print of an accurate transparent millimeter rule on stable base film* on the copyboard and focusing visually on the matte glass focusing screen, checking the size with a good steel rule but *without* undue regard for the exact size. Having done that we test for the precise position of the sharp image plane by using a fine grain emulsion plate at an angle and the "two hole" stop in the lens and then, having adjusted the lens-to-image distance if necessary, we take a shot of the test object, finally laying the film copy of the millimeter rule on its photographed negative image.

Suppose that 79 divisions (millimeters) of the original rule coincides with 313** divisions of its image on the negative; then the image is not at exactly a quarter

*This method of checking for focus and size was explained in detail in last month's article.

**It will be found that, for the particular scale, those two figures of 79 and 313 are the first positions at which lines on the image of the rule and on the actual rule coincide, because they have no common factor, indeed, it chances that they are both prime numbers and have no factors at all.

size because four times 79 equals 316. Obviously the
 79
 scale of our negative image must be — which works
 313
 out to .25239616 namely 25.2396 percent to four places
 of decimals, which is quite close for visual focusing.

Three Basic Optical Formulas

We now have to calculate how much adjustment is necessary to bring the image to precisely one quarter size. Three basic optical formulas govern our calculations. They are the following:

$$\left. \begin{array}{l} 1, v = f (1 + m) \\ 2, u = \frac{v}{m} \\ \text{and } 3, u = f \left(1 + \frac{1}{m}\right) \end{array} \right\} \text{Sufficient for our present purpose.}$$

and 3 $u = f \left(1 + \frac{1}{m}\right)$ Which will be used later.

Where "v" represents the distance from image to lens (the "camera extension").

"u" represents the distance from object to lens (the "object distance").

"m" represents the "magnification," the scale of the job, the result of dividing the length of the image by the length of the object. Thus if "m" is less than one, the image is at reduced size and if greater than one it is enlarged.

And finally "f" represents the focal length of the lens, the shortest distance at which a "real" image can be formed with that lens, the focus of "infinity" from the lens.

Now to our calculations. Let us say that the precise focal length of our "30-inch" lens has been stated to be 29.934 inches by the makers. We know that our test
 79

image was at a scale of — = .25239616 which is the
 313

value of "m" (no need to take it so far as eight places, four will do if you are not using a calculating machine).

From formula 1. we know that

$$\begin{aligned} v &= f (1 + m) \\ &= 29.934 \times 1.25239616 = 37.489228" \\ \text{and } u &= \frac{v}{m} = \frac{37.489228}{.25239616} = 148.53327" \end{aligned}$$

If we work out the value of "v" and "u" in the same way, but with the required value of .250 for "m," then we get

$$v = 37.41750"$$

$$\text{and } u = 149.670"$$

So we have found that the distance from image to lens "v" ought to be reduced by the difference between 37.4892 and 37.4175, namely by 0.0717", which we do as accurately as our available tools will allow (actually moving it by about three quarters of a tenth of an inch by eye, using a rule, will suffice for a .1 percent tolerance but no doubt you would use a micrometer if you had one).

Similarly it may be seen that the distance from lens to object "u" needs to be increased by the difference between 149.6700 and 148.5333 (to the nearest four places), namely by 1.1367" (which is perhaps a somewhat surprising amount by which to correct the image: by only about one fifth percent.) This adjustment we also perform as accurately as we conveniently can. Then we shoot our subject with the knowledge that if we have made our tests and calculations correctly the job is bound to be well within the given tolerance.

This method *works* and works very well indeed, I do assure you. It not only gives the right size, but a pin sharp image, which is very important in the case of most accurate size work.

Moving the Image Plane

Do not forget that you may be able to adjust the image-to-lens distance by moving the image plane toward the lens, so as not to affect the lens-to-object distance, and then adjust the latter value, but many cameras (and all of the darkroom type) have a fixed image plane and one has to move the lens to and from it and the copyboard also. In that case the lens is moved through a distance equal to the difference between the two values of "v," as above, but the movement of the lens plane obviously also affects the distance between lens and copyboard; in fact moving the object plane alters the total of "v" plus "u" so we must move our object plane by the difference of those two totals. Thus, in the case of our example, the copyboard would need to be moved through the difference between 187.0875 and 186.0225, namely by 1.0650" away from the lens.

It will be seen that this method of adjusting the focus of a camera to a precise scale is comparatively simple, but most effective. It depends only upon the *difference* between the trial size and the final required size. Thus, even if the assumed focal length of the lens is slightly inaccurate, the precision of the result is only very slightly affected.

If one took the above quarter size figures and used them for calculating, say one and a half size, the result might not be so efficient, because the calculated amounts of movement of the image-to-lens distance and image-to-object (or lens to object, according to the type of camera) would be of the order of one and a quarter focal lengths and several focal lengths respectively, which would introduce increased errors if the focal length were not known very precisely. But if it is *very* accurate, then the adjustments to provide any required scale with great precision can readily be calculated.

Checking the Focal Length

Let us now consider how we would check the focal length of our camera lens. We would make our tests as described above, but in this case we would choose two sizes about as widely separated as possible. I suggest one-quarter size (approximately) and one-and-three-quarters size. Again we use the *differences* of the results for calculating our answer, but because those differences are so much greater we must be particularly careful in carrying out the experimental work.

Only the two widely separated tests are necessary, but I like also to make a test at about one-and-a-quarter size for three main reasons. First, the difference of image-to-lens distances ("v") between quarter and one-and-a-quarter sizes is one focal length and it is one-and-a-half focal lengths between quarter and one-and-three-quarter sizes, so, although the three scales will not be exact in the test's, one can take a rough check that the figures of the results are at least reasonable and one has not made a silly mistake—which is quite useful!

Secondly, one can calculate the focal length in six different ways from three tests, but only in two ways from two tests: either method should give an accurate answer, but if six results are closely similar, there is no room for doubting their accuracy and thirdly, if they are not very close, an average of the six is likely to be very near to the right answer (although that method of getting at it is not mathematically 'proper'!).

A Mathematical Puzzle

I hope and believe that many readers may be sufficiently interested in this subject to wish to puzzle out

how the focal length is calculated before it is explained in this series, so may I give the figures of some tests to conclude this month's article. The way in which I suggest that the calculations may be done will be the subject of next month's article. The following table contains the results of tests at one-quarter; one-and-a-quarter and one-and-three-quarters sizes on a very well designed dark-room camera which has digital counters registering the distance from image-to-lens and from image-to-object in inches and thousandths and is provided with a chart of the appropriate counter settings for the complete range of percentage sizes. On the chart the lens was stated to be of 29.934 inches focal length. The copyboard counter was set to the chart figure for one-quarter size and the image-to-lens distance was adjusted to give sharp focus, when that counter reading was noted and a negative made from the test object. The scale of photographed image of the millimeter rule against the rule itself was noted to fix the actual size of the image. This was repeated at the one-and-a-quarter size setting and also at one-and-three-quarters size, with the following results:

SCALE	COUNTER SETTING IMAGE-TO-LENS	COUNTER SETTING IMAGE-TO-OBJECT
147		
590	3.882"	72.364"
257		
202	34.446"	6.510"
67		
38	49.107"	14.635"

You will notice that the scales are not exactly $\frac{1}{4}$ ", $\frac{1}{4}$ " and $\frac{3}{4}$ ", but they are of that order, and of course the distances registered on the counters are obviously not the actual total distance from image-to-lens or from image-to-object; the counters have simply been set at around zero at their absolute minimum reading and they have then measured accurately from there.

Would you care to work out the focal length of the lens, using the optical formulas quoted earlier in this article and the facts given in the table?*

NEXT MONTH: *Checking the focal length of a lens and adjusting a high quality camera to close precision at all sizes.*

Mr. Salesman:

How's Your CR?

By *Paul L. Brink*

Haynes Lithograph Co.

LET'S face it, men. By stark comparison with our sales brethren in other fields, we printing and litho salesmen spend far less time at direct, hell-for-leather selling. Rather, whether we realize it or not, our stock in trade lies more in the field of customer relations.

For example, we've all received at least one visit from that cheeky critter who practically knocks down the front door of our house in order to get in and plead with us to begin the salvation of our children's minds by purchasing 36 volumes of his new encyclopedia. Or perhaps we have tangled with the automobile hotshot who insists that our three-year old heap is not only on the verge of busting us financially but also represents a threat to highway safety unless we swap it immediately for his jazzy new '59 model. Certainly these guys, and many more like them, have an all-out selling job on their hands 99 times out of 100 and seldom get a nice deal all laid out and waiting to be picked up.

Now being a proud bunch, we litho salesmen would never let it be said that such gravy as "order taking" ever comes our rugged way; yet, when confronted with the lie detector or truth serum, we must own up to the fact that one of the most appealing things about selling litho is that we are able to build up substantial accounts through the years which should take good care of us when our arches begin to fall and bifocals and arthritis becomes our lot.

Let's Do Some Soul-Searching

If we are established in the trade and are not getting at least a smattering of the fatter orders, then perhaps some soul searching is necessary. After passing the B.O. and halitosis examinations, we had best investigate our product. If the boys on the machinery are turning out junk under the guise of good printing, our work is lousy and that's why it is hard to sell.

If, however, the stuff is as good as, or better than, our competition, then the jig is up. We must face the mirror, swallow bravely, and say: "It must be me." Why should we have to haggle, plead and scheme to sell good stuff at the right price to the same man every time, particularly

after he has tried us once or twice? It boils down to the fact that he just likes to deal with other guys than with us.

Sure, he's a dirty so-and-so and a crummy chiseler. He plays favorites and he probably beats his wife. The hard fact remains that he buys, he buys often, he buys big—and he buys elsewhere. Maybe we are overdoing it, but it all means the same thing: we are not wearing well with the man after we have sold him initially.

Most of us salesmen call on the same customers and prospective customers over and over again. For instance, on our first call at, say International Roadrunner Inc., we greet the purchaser with the customary wide Pepsodent smile, the glib sales pitch and the carefully hand-picked samples. We find out he does buy a lot of what we sell. He's a good prospect. We weren't thrown out so our foot is in the door.

Third Call—Forget the Sales Pitch

By the third call the wide smile and samples must necessarily remain but the sales pitch is out the window because he now knows who we are and whom we represent, and he has a good idea of the type of work we turn out. If we continue the heavy sales hoopla we're beginning to get boring and repetitious. If we become too aggressive and start pressuring for an order we run the risk of becoming obnoxious and from then on he will always be attending a big meeting every time our presence is announced. To make matters worse, perhaps our own boss has found out we have made a little progress at International Roadrunner, Inc.—a big printing buyer—and then he starts dogging our tail for some of the loot. (You know: "*I've heard that Swimmie Printing and Litho does half a million a year with those people. What the hell's wrong with you!*!")

Assuming the good fairy comes to our rescue and that persistence and the momentum of our initial contacts gets us a trial job from good old International; also assuming we deliver them a real good job (and we're insane if we don't go out of our way to make sure it's a good job)—then what?

Well, sir, in that case our work has sold itself to these boys but have we sold *ourselves*? If we must go through the same rigamarole for the second job, and the third job, and every job, then we have not. What is indicated by this stubbornness is that the new customer grudgingly likes our product or he wouldn't reorder it at all, but he is not doing his bit to make things any easier for us. He could well do this with a nice gravy job now and then or an occasional droplet of information to put us in the groove for the long press run that may be coming up next month.

What's wrong? Am I too stuffy? Do I make him uncomfortable? Am I a wise guy who makes him resentful? Do I flirt with the secretary the old boy is sweating out himself? Am I just half-safe? One thing is sure, I'm just not being accepted by him as I should be. Swimmie's

(Continued on Page 115)

**A management official in the graphic arts
outlines a thorough in-plant program for**

Developing Supervisors

By *Robert B. Stauffer*

Managerial Development, R.R. Donnelley
and Sons Co., Chicago

THERE appears to be confusion and ambiguity whenever management development becomes the topic for discussion. First, the phrase, "management and supervisory development" conceivably encompasses any and all planned activity primarily directed at providing an organization with a continuing supply of qualified personnel able to effectively exercise some degree of supervisory or management responsibility. It should be immediately apparent that this concept covers a range in activities and categories of jobs impossible to include in the span of this brief statement.

Therefore, my remarks will be devoted primarily to a few selected classes or levels of management activity and categories of jobs for which all of us might wish to consider planned personnel development. However, it should be pointed out that experience suggests that for development activities to succeed, it is essential that there exist an *integrated* approach which includes all levels and types of management within the organization.

From the Top Down

In other words, planned personnel development must work from the top down. One can't ignore the current effectiveness of department heads while concentrating on the development of their future replacements. This statement simply reflects the known fact that the example set for us by our superiors is one of the most influential forces affecting our own personal development.

I would first like to review briefly

what I consider to be some key points in the basic philosophy behind any management development activity. (I am assuming that the importance of operating on the basis of a philosophy is incontestable.) While neither novel nor all inclusive, these points nevertheless establish some landmarks by which the course must be sailed if we are to have even a 50-50 chance of reaching our destination.

First, we must realize that all development is ultimately self-development. Recognition of this basic fact must eventually pervade the planning and execution of each and every phase of development activity. It should serve to remind us continually of the prime importance of individual motivation.

Next, we should be convinced that the immediate superiors of those to be developed must carry the primary responsibility for development of their subordinates. This applies to selection of content of the specific development programs as well as to their administration and execution.

Thirdly, an environment conducive to continuing day-to-day emphasis on planned development activity must obtain. Essentially this signifies little more than the necessity for active support from all levels of management.

Acceptance of these principles leads us to two conclusions:

1. *That development activities must be planned in terms of individual needs.*
2. *That goals must be established with relation to the needs as identified.*

If we accept these conclusions we must also realize that no single training method will answer the needs of all and so we will select those methods which will help the particular manager or supervisor most quickly and surely attain these specific goals. In analyzing the needs to be met and the development methods available, we find that certain goals can be effectively realized through group sessions while others require individual programming, and still others through a combined approach.

After adopting a philosophy and enunciating some basic principles which are to be the guide lines, the organization is now faced with the first real test of its intentions: the selection and carrying out of specific plans of action. The alternatives are infinite but I should like to describe briefly some basic programs with which I have had some experience and which embody the principles referred to above. These include basic programs for inexperienced men selected on the basis of their supposed potential to become managers, as well as some approaches to formal development activities for those already exercising management responsibilities. Our illustrations will relate to a large printing establishment.

Development of Management Trainees

Our goal is to provide an adequate supply of pre-trained talent to back up every key job in the organization. Although the process of identifying the number and type of man needed is a vital step in the entire process, I will limit the com-

ments here to the things we do *after* these decisions are made. It should be noted that the criteria for selection vary with respect to the requirements of each of the primary functional areas within the organization toward which the trainee will be pointed, e.g. production, research, sales, etc.

A main source of trainees is recent college graduates. The graduate's initial introduction to the company and the printing business might be through the medium of the four-week orientation program. This is a full-time group program conducted several times annually and aimed at meeting needs in three main areas:

1. An introduction to the organization—its structure, viewpoints, policies, standards customs and traditions. This knowledge is presented through combination lecture-discussion type meetings with top management and key staff personnel leading them.
2. A rudimentary picture of the nature of the printing business—the basic functions of a printer, the key processes involved, and the physical facilities needed to do the job. This is accomplished through lectures and planned tours under the direction of a member of the technical training staff.
3. An appreciation for skills—a laboratory experience in which the individual actually performs most of the operations necessary to carry a job through from original copy to the printed page. This experience takes place under conditions similar to those provided for the training of apprentice craftsmen.

On completion of this orientation program, the individual begins his basic self-development program. This is an individually-planned schedule of observations and working assignments in those parts of the organization which will provide the man with a background of knowledge, skills and contacts believed necessary for him to fit quickly into a beginning level supervisory or staff assignment.

These programs may run from a minimum of three months to a maximum of several years, depending on the requirements of the position to which the man will be assigned and on his own qualifications. A more detailed example of this type of program will be outlined below.

In addition to the two programs described above, the trainee is also given the opportunity to attend specific conference-type programs on subjects such as statistical quality control, cost control policies and procedures, and others of a similar nature. He may also participate in off-duty educational programs designed to give additional printing knowledge and/or personal skill development.

Since the great majority of first-line managers in our industry are drawn from the ranks of craftsman, it is necessary to provide them with the means of making an easy transition to the management job. Each man selected for promotion to foreman will participate in a full-time four-week program designed to help him meet his needs in each of the three following areas:

Three Main Areas:

1. The responsibilities of the Foreman.
2. Sound supervisory practices.
3. Working relationship with the remainder of the organization.

These topics are covered during the four-week period immediately prior to promotion and include planned contacts with various members of management, involving a total of 60 separate sessions of one to two hours each. Typically, the foreman candidates will attend these sessions in small groups of from four to eight men.

For those in the organization already carrying management responsibilities, we should provide a variety of development opportunities. Among these are "management conferences" to be conducted on a continuing basis throughout the year. They cover such subjects as cost control, working relations, and production

planning. Participation in these conferences, which are planned and conducted by an appropriate committee of line and staff personnel, is determined through agreement between the individual supervisor and his immediate superior. The practice is to draw up a list of pertinent subjects for conference treatment and give the individuals an opportunity to select the two or three which would be of greatest value or interest to them. These management conferences are generally conducted during working hours and are typically scheduled to run for a period of eight weeks, with the individual sessions not exceeding two hours.

Of a broader nature are the "president's conferences" which are normally held four times a year, and which are attended by a somewhat higher level of the management group, including division and department heads.

To give emphasis to individual development, a program should be established to stimulate continuous improvement of men in the performance of their present jobs. Department managers and division directors jointly work up a basic plan designed to appraise the development needs of the individuals under their supervision. Individual self-improvement plans will follow and are established by:

1. Reviewing the skill and knowledge requirements of a particular job.
2. Assessing how well the individual's performance meets these requirements, and
3. Evolving a detailed plan setting forth the specific targets to be met and suggestions for their attainment.

These plans are set up for each man on a managerial job and are regularly reviewed and brought up to date by the man to whom he reports.

Typical Development Program

The objectives of a Manufacturing development program are:

1. To provide strong first-line su-
(Continued on Page 123)

Important for quality lithography:

Five Steps To Watch In Packing the Press

ACCURACY in packing the offset press is more important—and more difficult—than most of us realize.

The useful life of a press plate depends upon several factors. One of the most damaging factors is the wear that it receives from the blanket.

The way in which the blanket is leveled in relation to the plate and in relation to the cylinder bearers is one of the very important items of press set-up. This part of the press set-up, or makeready, is called the packing procedure.

The amount of wear received by the plate is in direct proportion to the amount of squeeze pressure and the amount of rub between plate and blanket. This is measured in thousandths of an inch, and an error of two thousandths can ruin quality, run up lost time, produce considerable waste, and finally spoil the plate.

The usual method of packing a press is to mike the plate, the blanket, and the packing sheets. Then, knowing the undercuts of the two cylinders, we calculate how much packing to use on each cylinder. This seems simple enough and it should certainly be accurate as long as we use such a highly sensitive instrument as a micrometer. But the fact is that our presses are still often packed improperly for several reasons.

One of the most frequent mistakes is using a machinist's micrometer to caliper a blanket. This type of mike usually indicates the blanket to be one to three thousandths thinner than it really is. This mistake can result in several thousandths overpressure.

Don't Ignore the Fraction

Another mistake is to ignore the fractions of thousandths in our calculations. When we mike a plate, a

blanket, and five packing sheets, these fractions could easily add up to one or two thousandths.

Then there is always the possibility of making a mistake in addition. We seldom bother to write down our mike readings; we just add them up in our head. Some serious consequences have resulted from this practice.

Another thing to consider is that the blanket thins out as it stretches around the cylinder. We do not know exactly how much because each blanket acts a little differently from others.

Recently it has been established that certain grades of packing paper also thin out under pressure. Paper may contain from 30 to 50 percent air. Some of this air squeezes out under pressure, causing the packing paper to thin out.

The air in the fabric of the blanket does the same thing, but there is always the possibility that the rubber will swell. The safe thing to do is to use a special blanket mike, and then test your final set-up with a packing gauge.

Steps for Packing Press

Therefore, the steps to take in packing your press are:

1. Mike the blanket with a special deep-throat soft materials mike or a blanket thickness gauge to get accurate caliper.
2. Mike the plate and all packing sheets carefully with a machinist's mike.
3. Use hard, non-bulky, special packing sheets.
4. Write down all readings, in fractions, and add carefully to arrive at the desired packing for each cylinder.
5. After the packing set-up is complete, run the press two or three minutes with the pressure on. Then check both cylinders with the packing gauge.★

From a bulletin of the Lithographic Division, New York Employing Printers Association.



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sion, on stable PB or on any support you like. Its good results are universal. You'll find Type 3 fits your techniques, eliminates guesswork, seems to cooperate with you more than other emulsions do to give you more hits and fewer misses than ever.

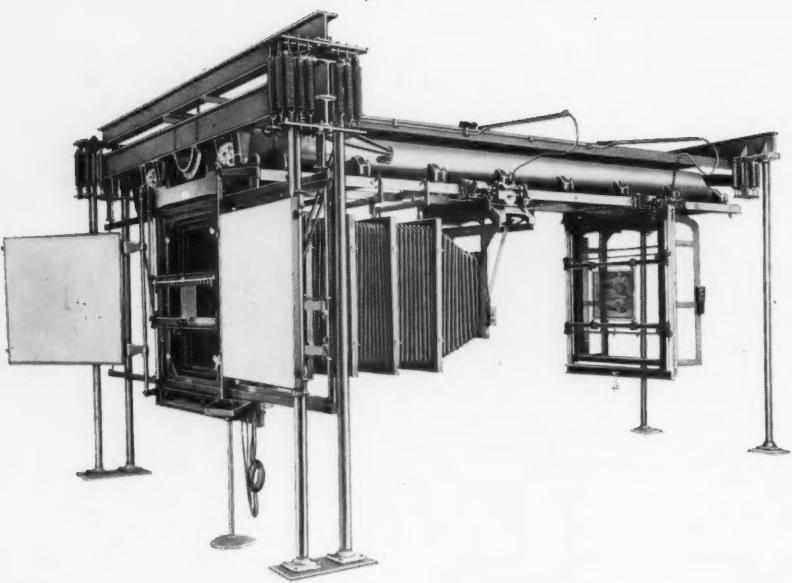
What base suits you best? Acetate, regular or thin base. Plates, any size, .060 to $\frac{1}{16}$ -inch thick. Stable PB, regular or thick base. And these are only the beginning . . .

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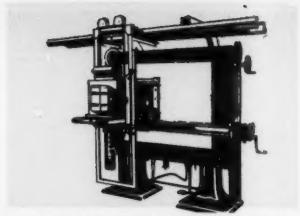
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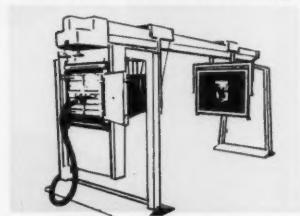


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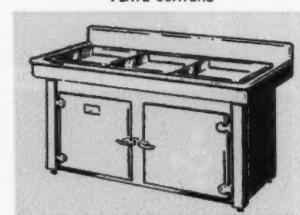
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LAYOUT AND STRIPPING TABLES



DOT ETCHING TABLES

Good Planning means Better Production

By *Walter J. Garde*

Technical Representative
West Virginia Pulp & Paper Co.

OPERATING an offset press efficiently is an exacting job and requires an alert conscientious worker, who is more than just a button pusher. Good work habits, combined with adequate technical training and "plan ahead thinking" are the essentials that make an expert pressman.

The only time that a litho press has any real value and makes money for its investors is when it is running properly and turning out a saleable product. Statements of this type are often heard in the printing industry, and the cold hard fact is that they are all too true. Assuming that there is sufficient work for the press, the next logical step is to pass on to the pressman the responsibility of operating the press efficiently enough so that a reasonable profit can be made on the printing.

In addition to a basic knowledge of offset printing fundamentals, the required period of training, and the years of trade background that are necessary before a litho press operator can earn the title of master printer or journeyman pressman, there is also a certain amount of "savvy" or know-how that an experienced pressman brings to his job that sets him apart from the run of the mill worker.

It is this "edge" that enables him to keep his production averages higher and the quality of his work up to acceptable standards. He has developed a system of work habits and techniques that keep his press under control and allows him to be able to think one step ahead of the job all the time.

It is the ability to "plan ahead"

that makes him an outstanding worker, and incidentally, one who will be thought of first when promotions are being considered.

Not a Special Gift

This "plan ahead" technique is not a special gift given only to a fortunate few; it can be developed with a sincere effort. Results will be evident immediately.

A well trained pressman is aware that a clean, well organized, systematic work area greatly simplifies his daily task.

The area around each man's machine is his responsibility. The trash barrel and not the floor is the proper place for scrap and other discards.

Oil drippings should be cleaned up and the wiping rags placed in covered metal fireproof containers. Clean floors not only increase safety but also promote an atmosphere of neatness that is important in printing work.

There are many tools such as wrenches, screwdrivers, pliers, etc., that are used continually. These should be kept handy on a tool board or rack with other press accessories and equipment. If it is necessary to make a tool rack, the pegboard and clips that are available at any hardware store are excellent for the purpose. Such a tool rack, incidentally is worth the effort involved in making it.

The built-in metal boxes which are usually found on the delivery frame of most presses are unfortunately more often used as catch-alls than tool receptacles. The danger of knocking or dropping articles into

the moving press makes it important to avoid cluttering these boxes with unnecessary items.

Press supplies, extra dampener covers, blankets, chemicals, presensitized plates and other such material are best stored on shelves or in cabinets. In some shops, the pressman orders his own supplies, in others the office is in charge. Regardless of the system, there is no excuse for press downtime or delay because of supply shortages.

Supply of Spare Parts

Many pressmen keep a supply of spare parts on hand for emergencies. These usually include extra feed board tapes and cement, rubber suckers and hoses, a fresh drive belt and any additional parts which experience with a particular press shows it best to have available. For presses that use plastic or fiber blades in the washup system, one or two replacement blades are recommended.

Every effort should be made to have a clean worked-in set of dampeners ready for use. Since most presses come equipped with two sets of dampener cores, there should be no reason to have to hold up production while covers are to be sewed on or worked in. The "plan ahead" pressman uses slack or spare time to prepare molletons.

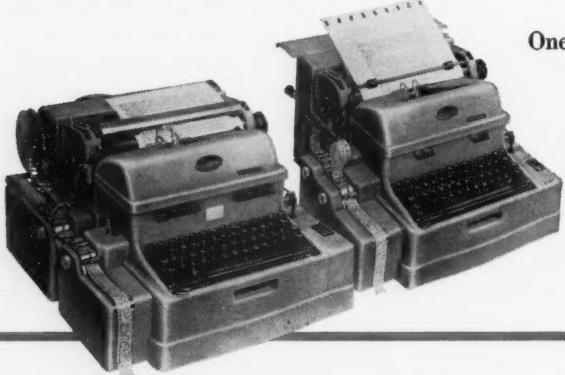
Paper dampeners have become more and more popular and their simplicity and ease of handling have won them wide acceptance. To make rewrapping these rollers easier, a supply of pre-cut lengths with proper

(Continued on Page 121)

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PHOTOGRAPHIC CLINIC

By **Herbert P. Paschel**
Graphic Arts Consultant



Stop-Dot; Diaphragm Control; Multiple Mirrors

Stop-Dot Process

Q: A friend of mine in England mentioned that he uses the Stop-Dot process for drop-out halftones. Is this something new? Is it available here?

J. W. F., CAMDEN, NEW JERSEY

A: As a matter of fact this process is quite old and has been in use in this country for more than 25 years. It was mentioned by this writer in the April 1942 issue of MODERN LITHOGRAPHY as part of a survey (no longer available) of highlight halftone methods. Stop-Dot is nothing more than the Fluorographic process under a new name. It (Fluorographic) is available for use here under license from Printing Arts Research Laboratories, Inc.

Diaphragm Control

Q: I have a diaphragm control with a large, finely divided scale. Even with this setup I still get exposure errors that I think are due to errors in the lens opening. Is this possible?

N. G. P., ALBANY, NEW YORK

A: If the lens diaphragm mechanism is badly worn it will have considerable backlash. Although you set the pointer to the same setting, the actual aperture may not be the same each time. Try setting the pointer by moving it in one direction only. This may mean you have to go beyond the setting and then come back to it in the established direction. This will minimize the effects of backlash, if such is really your problem.

It is impossible for Mr. Paschel to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.

Multiple Mirror Systems

Q: What is the purpose of multiple mirror systems on some process cameras?

C. W., PITTSBURGH

A: A negative produced in a lens-only camera reads correctly when viewed through the film base. This is desirable when surface plates are to be made because the negative image will be in intimate contact with the plate coating during exposure. For positive-working plate systems, a positive is required. If made by direct contact (emulsion to emulsion) from a regular negative, the required positive would be wrong-reading when used emulsion down. To correct this, the positive would have to be used emulsion up or, in contacting, the negative would have to be flopped. Both procedures could result in undercutting of the image.

When a prism is used in front of a lens, the resulting image is laterally inverted. A negative so produced can be contacted emulsion to emulsion and the resulting positive would read

correctly emulsion side down. Prisms, however, require that the copyboard be at a right angle to the lens, a situation that can't be realized with the standard straight line cameras. A multiple mirror system, plus prism, makes it possible to get lateral reversal on straight line cameras. By another arrangement of mirrors it is possible to obtain the same image orientation as with lens only (double reversing). With some cameras, especially those with the lens and prism in a fixed position, it is necessary to have the combined systems in order to be able to do reversal and regular shooting. With other cameras the reversing system can be readily moved aside and replaced with regular lenses.

Book Reviews

GEVAERT MANUAL OF PHOTOGRAPHY,
A. H. S. Craeybeckx. Published by Gevaert Photo Producten, N.V., Antwerp, and Fountain Press, London. U. S. Distributor—The Gevaert Co. of America, Inc., 321 W. 54th St., New York 19, 460 pp., \$3.50.

In presenting the theory of the photographic processes, the intimate details of everyday practice are, more often than not, largely overlooked. On the other hand, a simple "how to do it" treatment usually provides no more than a glimmering of the theoretical aspects. The average photographer not only needs to know how to handle the materials he works with, but "why." The reasons for a specific manner of handling are, of course, covered by theory. In

the *Gevaert Manual of Photography* the how and why are very cleverly blended to make this book an ideal text for those who desire to acquire a thorough practical and technical knowledge of photography.

In Part One the principles of photography are outlined. Herein are defined and explained the fundamentals of photographic optics, the nature and characteristics of sensitive materials and the chemistry of processing. In the following section, the characteristics of negative materials, exposure response and specific processing instructions are the topics. Making a variety of positive images is covered next. This includes contact prints, enlargements, lantern slides, etc. Document photography and darkroom layout and operations are likewise discussed.

The fourth section is devoted to color photography, beginning with a concise and lucid explanation of the fundamentals of color and light and color reproduction principles. The balance of the section deals specifically with the many Gevaert color materials—their characteristics, exposure, processing, etc.

Photographic chemicals, formulas, useful hints and recipes make up the fifth section. The final section includes an assortment of useful tables.

There can be no doubt that this book is a storehouse of much valuable and useful information in addition to its clearly understood presentation of photographic theory and practice. There are 14 color plates, 130 diagrams and 155 black and white illustrations to augment the text. The foregoing, coupled with an outstanding printing job and the bargain price of only \$3.50, make this book a desirable addition to any photographer's library, amateur and professional alike.

CHESKIN COLOR WHEEL FOR COLOR PLANNING, Louis Cheskin, The Macmillan Co., 60 Fifth Ave., New York 11, \$5.

This is a color wheel with 12 equidistant hues and 48 tints. A transparent, movable sector has five equidistant degrees of black. By moving

the sector, 60 shades and 240 tones may be created. Thus, a total of 360 colors are visually possible. Printed instructions on the flap facing the wheel briefly detail color mixture principles, define the terms used and outline the use of the wheel.

CHESKIN COLOR CHARTS (For Color Planning), Louis Cheskin, The Macmillan Co., 60 Fifth Ave., New York, N. Y., 40 pp., \$2.50.

This is basically a collection of 12 color charts. Starting with pure color, the horizontal progression shows the effect of increasing addition of black to the color. Progressing downward, each step shows an increasing mixture of white and color. Thus, the 25 divisions of each chart show the tints, shades and tones obtainable by adding white, black or both to the pure color. The charts are so arranged that complementary hues are on facing pages. Four illustrations of color mixture principles and an explanatory text for the charts complete the book.

THE SCIENCE OF PHOTOGRAPHY, H. Baines, John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, 320 pp., \$7.00.

A volume that covers the fields of physics, chemistry, optics and mathematics is a difficult one to present with utter simplicity. In *The Science of Photography*, the author's aim is to provide the non-scientific photographic technician with a lucid, easy to read introduction to the science of his craft. This the author has succeeded in doing for readers who have at least a fundamental understanding of the sciences involved. For those less schooled the author provides basic lessons in the sciences.

Starting with a brief history of photography the reader is exposed to the various aspects of the photographic processes in logically related steps. With the exception of halftone photography, the 25 chapters cover all of the phases of photography necessary for a sound scientific understanding of the subject. In addition to the expected coverage, the author also discusses sensitometry, tone reproduction, color photography and masking, scientific and tech-

nical applications of photography, and document copying.

In view of Dr. Baines' long career as a photographic scientist, the material is unquestionably authoritative and up to date. Far from being a dull technical tome, this book does present a somewhat complex subject in an interesting and comprehensible style.

COMMERCIAL AND INDUSTRIAL PHOTOGRAPHY, David Charles, The MacMillan Co., 60 Fifth Ave., New York 11. 402 pp., 136 illustrations, \$10.50.

To those who prefer a practical, down-to-earth explanation of photographic techniques, this book should prove to be both interesting and informative reading.

Shunning reference to abstract principles and avoiding involved scientific explanations, the author, instead, presents his subject from the standpoint of practical, proved techniques that are specific for the task at hand. And, since he writes from his own personal experiences, the you-can-do-it-yourself advice comes from a practical practitioner. The author has spent a lifetime as a commercial and industrial photographer and, for many years, conducted a flourishing studio in London. In addition, Mr. Charles has photographed three generations of English Royalty as Official Photographer at Hampton Court Palace and has served as technological consultant to Buckingham Palace.

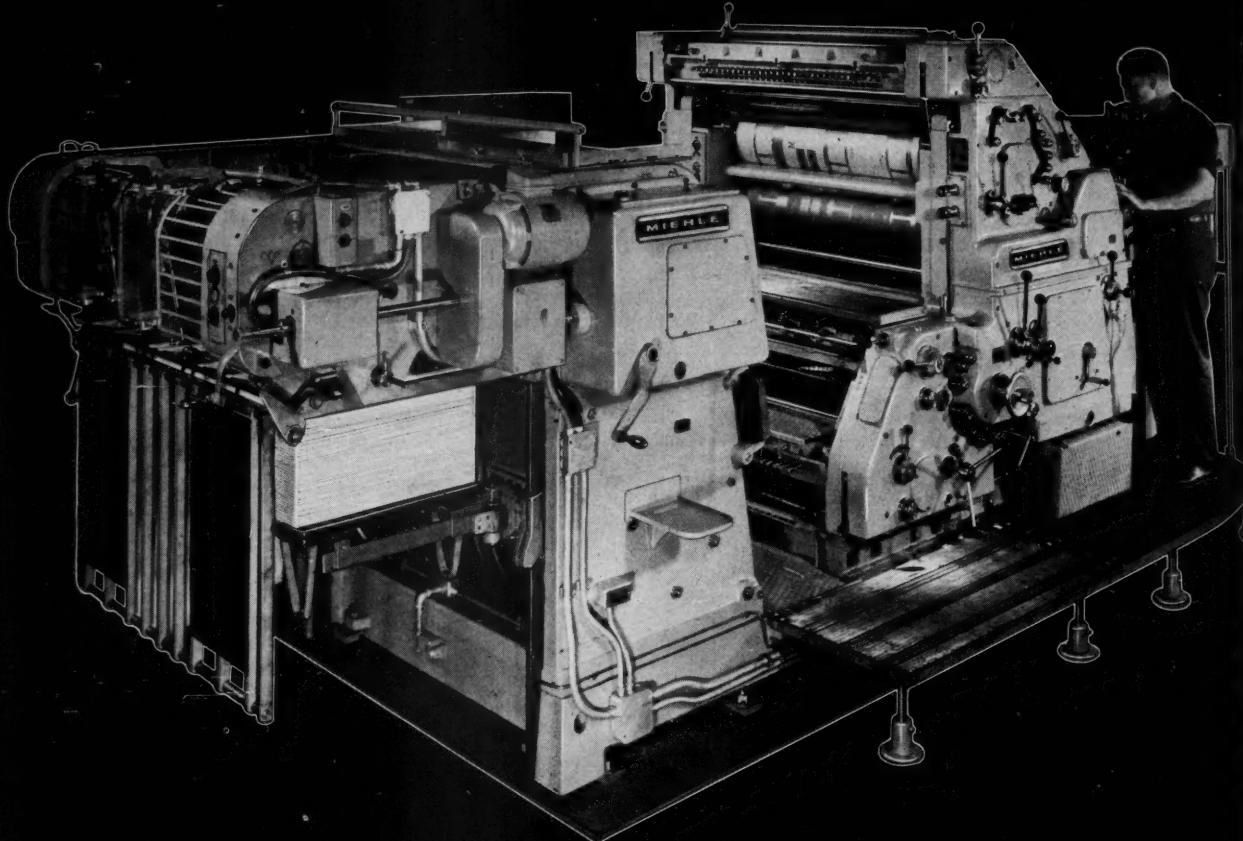
The author not only demonstrates and teaches the basic fundamentals of commercial photography, but reveals many of the "tricks of the trade" which he developed to meet unique photographic problems. The 25 chapters cover cameras, lenses, camera movements and their uses, camera accessories, studio lighting, natural lighting, backgrounds and reflectors, etc. Other chapters treat the photographing of specific subjects, micrography, lantern-slides and film-strips, copying allied techniques, a glossary of photographic

The usual compilation of formulas and detailed processing instructions

(Continued on Page 116)

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TECHNICAL SECTION



For examining paper:

PATRA Develops Fluff Tester

FOLLOWING extensive research at the laboratories of the Printing, Packaging & Allied Trades Research Association (England), a commercial tester for assessing fluffing characteristics of papers is now in production. The instrument, which is basically the same as the prototype apparatus developed in 1957, costs £98 (\$275) and may be obtained from PATRA* on application.

The instrument has shown a high degree of correlation with practical printing conditions, and besides grading papers for their fluff tendencies, it has also proved useful for testing carton and boxboards, and coated papers for surface dust.

Printing experiments have shown that a greater quantity of fluff was removed when paper was run through the machine in contact with a dry-offset blanket than when ink and water were present. This is the principle on which the tester works.

Essentially, the instrument consists of two metal cylinders, one being covered with a rubber offset blanket: they are mounted in such a manner that they may be brought into contact under a known pressure. The blanket cylinder is rotated by means of a handle at the side of the instrument, and the rollers are brought into contact by releasing a lever. With the rollers in contact, five sheets of paper are fed through the nip with the side

to be tested facing the rubber blanket.

The amount of fluff removed from the paper surface and deposited on the blanket is estimated by counting the number of fibers per square inch. Counting is facilitated by the use of a moveable lens mounted on the frame of the instrument and by side lighting of the blanket.

The normal procedure is for three repeat tests to be carried out on each paper. Ten counts are recommended for each test, the results being expressed as the number of fibres per square inch on the blanket after the passage of five sheets whatever the number of sheets fed.

Although five is the usual number, it may be necessary to feed fewer sheets on very fluffy papers, otherwise the deposit becomes too large to count. When the count rises above about 50 fibres per square inch, the assessment becomes tedious and on featherweight papers and M.G. boards, it is sometimes only possible to feed one sheet before counting. In these cases it is necessary to increase the number of repeat tests in order to maintain the accuracy of the result.

The main application of the tester in the printing industry is for com-

(Continued on Page 121)

Technician tests a sheet of paper with Fluff Tester.



* Printing, Packaging & Allied Trades Research Association, Patra House, Randles Road, Leatherhead, Surrey, England.

TECHNICAL BRIEFS

These abstracts of important current articles, patents, and books are compiled as a service of the Lithographic Technical Foundation, Inc. They represent statements made by the authors and do not express the opinions of the abstractors or of the LTF.

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Photography, Tone and Color Correction

PHOTOTYPESETTING EQUIPMENT STILL PUZZLES PRINTERS. Alexander Lawson. *Inland and American Printer and Lithographer* 142, No. 5, Feb. 1959, p. 74, 75, 98, (3 pages). This brief survey brings the situation in the phototypesetting field up-to-date for the printer. The machines are grouped into several groups and each group discussed together. These groups are: 1. The simpler, less expensive equipment for display type. 2. Justifying typewriters. 3. Adaptations of standard typesetting machines, either single type of slug casting, to photocomposing, and 4. The costly electronic phototypesetting machines.

VARIATIONS IN PHOTOGRAPHY EXPLAIN DARKROOM MYSTERIES. Part 1. Herbert P. Paschel. *Modern Lithography*, Vol. 27, No. 1, Jan. 1959, pp. 35-6, 109, 3 pages. Six forms of difficulties encountered by graphic arts cameramen are listed. The subjects under which these are to be discussed are: 1. Photographic Materials. 2. Illumination. 3. Optical Systems. 4. Processing Errors. This installment covers reciprocity failure as encountered with materials used for line and halftone work.

Alfaya's paper in 1956 TAGA Proceedings is cited. Suggestions are given as to how to meet these variables.

VARIABLES IN PHOTOGRAPHY EXPLAIN DARKROOM MYSTERIES. Part 2. Herbert P. Paschel. *Modern Lithography*, Vol. 27, No. 2, Feb. 1959, pp. 52-5, 127-8, 6 pages. Study of effect of reciprocity failure is carried further (from Part 1) with regard to exposure variations: 1. Intensity of light on copyboard. 2. Light transmission of optical systems. 3. Different aperture systems used. These variables are analyzed at some length with the aid of graphs and diagrams.

A QUICK GUIDE TO COLOR SEPARATION. Andy Perni. *Modern Lithography*, Vol. 27, No. 5, May 1959, pp. 45, 46, 133, 3 pages. This is a semi-technical explanation planned for use of printers in explaining color separation to customers. In discussing preparation of copy, six forms of colored copy with their advantages and disadvantages are given as follows: 1. Color transparencies. 2. Art work. 3. Flexichrome. 4. Dye transfer and carbro. 5. Ektacolor print. 6. Hand colored black and white photos. Color separation is explained briefly, masking is mentioned.

Certain deficiencies in color rendition and their correction are explained.

REPRODUCING 35-MM TRANSPARENCY BY OFFSET. Gyan P. Madan. *Inland and American Printer and Lithographer*, Vol. 142, No. 6, March 1959, pages 54-56, 3 pages. Fifth of a series on Masking. The problem involved in getting masked separations from the small transparencies is explained. Equipment designed specially for this problem takes the form of attachments for large cameras, cameras built particularly for this service and integrating the entire operation into the equipment, and enlargers, some of which also incorporate special integrated systems. Examples of each form are cited and illustrated. Most or all of these use the Kodak short run three-color system which is explained in full detail and carried through step-by-step as applied in an enlarger. A table gives details of densities, suggested exposure and development times, and the materials used in the preparation of a set of negatives as explained in the step-by-step procedure.

AUTOMATIC RECORDING AND ANALYZING DENSITOMETER FOR REFLECTION AND TRANSMISSION DENSITIES. Monroe H. Sweet and Benjamin R. Harriman. *Photographic Science and Engineering*, Vol. 3, No. 3, May-June 1959, pp. 101-9, 10 pages. Presented at the Annual Conference of the Society of Photographic Scientists and Engineers, Rochester, N. Y., 8 October, 1958. Authors' Abstract. An instrument is described that simultaneously records the densities and computes the desired sensitometric characteristic values of test strips accurately and reliably. The new instrument accommodates both reflection and transmission strips on a 3 or 6 density range and does not require calibration or zero re-adjustment when changing ranges. Routine operation consists of feeding unmounted test strips into a slot in the measuring head. This new high speed densitometer has adequate precision and accuracy in terms of American Standard Transmission and Reflection Density for all ordinary sensitometric work.

Planographic Printing Processes

ROLL OF PLATES IN LITHO GROWTH. William Byers. *Graphic Arts Monthly*, Vol. 31, No. 3, March 1959, pages 78, 80, 82, 3 pages. A brief historical survey with the emphasis on recent developments. Some of the highlights given are: the coming of offset presses and metal plates; the founding of the Lithographic Technical Foundation; the standardizing of litho chemicals (by L.T.F.); supply firms with prepared chemicals instead of everyone his own chemist; new plates, including bimetal and trimetal plates, presensitized plates, copperized aluminum plates, and wipe-on coatings. Further plate development is predicted.

*COATINGS FOR LITHOGRAPHIC PRINTING PLATES. U.S. Patent 2,826,501, March 11, 1958. George R. Hodgins to Litho Chemical and Supply Co. *Chemical Abstracts*, Vol. 52, No. 11, June 10, 1958, column



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Photograph by Louis C. Williams

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Paper and Ink

GUMMED PAPERS. Wm. H. Bureau. *Graphic Arts Monthly*, Vol. 31, No. 2, February 1959, pages 196, 198, 202, 204, 4 pages. The coating of the paper and the "breaking" process to minimize curl are described briefly. The different types are listed as: remoistening, heat-seal, and pressure-sensitive. Types of paper and coatings used in water remoistening types of gummed papers are described and proper care and use of these papers is discussed.

MICRO-REFLECTION MEASUREMENTS OF PRINTED PAPER. G. M. W. Laseur. *International Bulletin for the Printing and Allied Trades*, No. 80, June 1958, pages 7-13, 7 pages. The author studied the problem of whether granularity measuring methods developed in photography could be applied to printed solids. A review is given of the statistics used in the photographic methods of Selwyns, Jones and Higgins, and Goetz and Gould. The author concludes that it is possible to derive an objective measure for the unevenness of printed solids from the statistical distribution of its microdensities or reflectances.

SOME THOUGHTS ON INK TRAPPING (Production Clinic). Frank Arbolino. *Modern Lithography*, Vol. 27, No. 3, March 1959, pages 53, 127, 129, 3 pages. Proper ink trapping is essential in multicolor wet printing. Standard color inks are normally supplied properly adjusted for ink trapping, but variations in plates and paper stock must be taken into consideration. Register troubles can be caused by improper adjustment of tack of inks. Other factors involved in trapping include make-ready, blanket, proper ink fountain adjustment, static control and water fountain adjustment.

ARE YOU USING PAPER TERMS CORRECTLY? Thomas N. Cook. *Modern Lithography*, Vol. 27, No. 4, April 1959, pages 55-6, 2 pages. The terms described as necessary in properly describing paper are given and explained. Those discussed are:

1. Dimensions and weight.
2. Grain direction.
3. Laid or wove.
4. Deckel or plain edge.
5. Color.
6. Finish.
7. Thickness.
8. Sizing.
9. Packaging.

ARE YOU USING PAPER TERMS CORRECTLY? Conclusion. Thomas N. Cook. *Modern Lithography*, Vol. 27, No. 5, May 1959, pp. 54-5, 126, 3 pages. Terms applying to specific types of papers are explained along with the special characteristics of the papers or characteristics involved. These are listed as follows:

1. Text and Cover Papers, A. Vellum Finish.
- B. Laid Text. C. Felt Finish. D. Watermark.
- E. Fluorescent whites.
2. Uncoated offset papers. A. Pigmented paper.
- B. General improvement.
3. Uncoated book papers, finishes: English finish, Eggshell, and Super.

Lithography — General

WEB OFFSET. Part 1. John B. Scouller. *Modern Lithography*, Vol. 27, No. 1, Jan. 1959, pp. 43-6, 112, 5 pages. A brief history is given, mostly of Webendorfer's work, and it is estimated that 750 of his presses have been built. Early progress was slow due to problems encountered. Presses are categorized as special product, or multi-purpose. The various forms which the web offset press takes are diagrammed and explained.

WEB OFFSET. Part 2. Buying a Publication Press. John B. Scouller. *Modern Lithography*, Vol. 27, No. 2, Feb. 1959, pp. 46-50, 5 pages. Publication web offset presses are largely of the blanket-to-blanket perfecting type. These are built by ATF, Hantscho and Harris-Intertype (at the Cottrell plant). The most commonly used size has the 22-1/4 in. cut-off, and 35 to 38 in. web width. The wide variety of folds, pages and color combinations possible with these presses is illustrated and given in a table. Additional units, folders and some attachments are discussed.

WEB OFFSET. Part 3. Buying Press Accessories. John B. Scouller. *Modern Lithography*, Vol. 27, No. 3, March 1959, pages 36-41, 137, 7 pages. The accessories discussed are those beyond what would be bought from the press manufacturer with the press. A list of these includes:

1. Warning device.
2. Fire extinguisher.
3. Static eliminators.
4. Ink drying equipment.
5. Split fountain printing equipment.
6. Ink agitators.
7. Fountain solution systems.
8. Web cleaners.
9. Pasters.
10. Bundler.
11. Flying paster.
12. Electric devices.

A short buyers' guide for such equipment is given.

WEB OFFSET. Part 4. Planning for the press. John B. Scouller. *Modern Lithography*, Vol. 27, No. 4, April 1959, pages 46-50, 5 pages. The planning discussed in this installment has to do with the output of a web offset press and how to sell it, estimating, figuring paper, costs, paper storage and handling, and space problems. (Reprint of entire series available from *Modern Lithography* at \$1.50.)

HOW MECHANICAL FEEDERS SUPPLY STOCK TO PRESS. George M. Halpern. *Inland and American Printer and Lithog-*

rapher, Vol. 142, No. 6, March 1959, pages 80-1, 2 pages. Most press feeding is now done mechanically. Roll feeding is mentioned in passing. Sheet feeding operations performed by the mechanical feeder are separating, forwarding and registration. Air suction, air blast, and combing separate the top sheet from the pile. Hints on the proper adjustment of these operations are given, also on how to avoid oil spray in the air blast.

HALFTONE AND LINE WORK ON ONE NEGATIVE. Anonymous. *Graphic Arts Monthly*, Vol. 31, No. 2, February 1959, pages 66, 68, 70, 72, 4 pages. Standard Register Company uses a photocomposing technique that increases platemaking capacity 10 per cent and is a big timesaver. The technique uses Kodak Auto-positive film to produce a combination negative which makes it possible to burn a finished plate in the first step instead of taking two. The use of the same material in step-and-repeat or pantograph orders is also described and illustrated.

HISTORY OF LITHOGRAPHY. *Japan Printer*, Vol. 41, No. 3, March 1958, pages 26-8, 3 pages (in Japanese). The contributions of Senefelder, Schlichtegroll, Andre Mitterer, Engelmann, etc. are reviewed.

PRINTING BY OFFSET ON ALUMINUM FOIL. Robert F. Watson. *Inland and American Printer and Lithographer*, Vol. 142, No. 6, March 1959, pages 49-51, 3 pages. Foil stock is readily available with paper or board backing to fit any job. A vinyl lacquer coating over the metal is necessary for the ink to dry on. The stock must be handled with reasonable care. Special inks must be used. The plates should carry as little water as possible to avoid emulsifying the ink, as the stock absorbs none of the water. Press speeds will run 75 to 100 per cent of regular paper speeds. A dry offset spray is recommended. Sheets should be racked with 100 to 500 sheets per tray depending on the stock. Costs are up due to cost of stock, and additional labor costs. Art work should be planned specifically for foil, especially with regard to the whites which must be laid on with ink.

LITHOGRAPHY ON CARTONS. Richard J. Walters. *Graphic Arts Monthly*, Vol. 31, No. 3, March 1959, pages 66, 68, 70, 72, 74, 5 pages. Reprinted from a paper presented at the 20th National Packaging Forum of the Packaging Institute, Inc. Four reasons are given why the lithographic process is growing in the printing of cartons: 1. Advantages in platemaking, particularly in the preparation of color separation plates for process color. 2. Improvements in large size, high speed, precision multi-color presses. 3. Ink improvements in the way of faster drying and stronger colors. 4. Improvement in the board stock in uniformity, and in coatings. Figures for the growth of the carton industry as given by the Folding Paper Box Association are quoted as follows: 1940 (earliest available) sales totalled \$135,730,000; 1947, \$480,000,000;

(Continued on Page 120)

LITHO CLUB NEWS

Milwaukee

Hold Annual Sports Night

The annual sports night meeting of the Milwaukee Litho Club was held late in June at the Ambassador Hotel. The meeting featured highlights of the sports year.

At a previous meeting, the club was host to Herman Goebel, then president of the National Association of Litho Clubs.

The club tour of the Western States Envelope Co. was reported a success, with a large number of members attending. The club held its annual picnic on June 20.

Franklin Dreschler was recently admitted to membership.

Washington

Holding Annual Fishing Party

The Washington Litho Club will hold its fifth annual Fishing Party August 15 at Solomon's Island, Md.

The party will be followed by a dinner at the Star of the Sea Catholic Church.

Conn. Valley

Tour Hartford Newspaper

The *Hartford Courant* was host to members of the Connecticut Valley Litho Club at its last regular meeting in June before the summer. The guests toured the offices and plant of the newspaper, where they were shown all phases of modern daily newspaper publication.

The club has accepted an invitation to act as host for the eastern mid-winter council meeting of the National Association of Litho Clubs, to be held Jan. 23.

The annual outing and clambake of the club will be held Aug. 15 at Turner Park, East Longmeadow, Mass.

The regular September meeting will not be held because many of the members will be attending the Graphic Arts Exposition in New York.

Cincinnati

Board of Governors Entertained

The Board of Governors of the Cincinnati Litho Club and their families were entertained on July 21 by Harold Biddle, club secretary, at his home. Following an elaborate fish fry dinner, the board members discussed the club's fall program, and then joined their families for a varied entertainment program.

PII Offers Color Vision Test

Printing Industry of Illinois has announced the availability to members of a color vision test for detecting color blindness and other eye defects in pressmen and others who have anything to do with quality control of multi-color printing jobs.

Known as the American Optical Pseudoisochromatic color vision test, it classifies the type of defect present and indicates its extent.

About 10 percent of the population has deficient color vision and there definitely are pressmen who are unable to differentiate between shades, tones and hues, says the PII statement. To save future headaches, spoilage and other expenses and loss of training time by new employes, members of PII are invited to send their new men to the association office for a test before they are hired.

CREATIVE COLOR, Santa Clara, Cal., lithographic firm, has installed a Rutherford photo-composing machine.

Litho Club Secretaries

ATLANTA

Bob Scheuer, 2118 Brannen Rd., SE

BALTIMORE

Robert Press

BOSTON

Vincent Aliberte, 2010 Revere Beach Pkwy., Everett

BUFFALO

John Demske

CANTON

Clayton Betz, 531 Grosvenor Dr., NW, Massillon, O.

CHICAGO

John Jachimiec, Container Corp. of America, 1301 W. 35 St.

CINCINNATI

Harold Biddle, 3308 Galbraith Rd.

CLEVELAND

Raymond Gallagher

COLUMBUS

Ed Carter, 873 William St.

CONNECTICUT VALLEY

Irving Gross

DALLAS

A. G. Copeland, 3116 Commerce St.

DAYTON

Loomis Pugh, 1809 W. Columbia, Springfield, O.

DETROIT

Erhardt Toensfeldt, c/o Drake Ptg. Co., 2000 W. 8-Mile Rd., Ferndale

FORT WORTH

Paul Hansen, 5317 6th Ave.

GRAND RAPIDS

Joseph Stevens

HOUSTON

Grady Caldwell, Caldwell Ptg. Co., 407 M&M Bldg.

LOS ANGELES

Al Griffin, 520 Monterey Rd., Pasadena

MILWAUKEE

Jack Miller, 2572 N. 21 St.

NEW YORK

Ed Blank, 401 8th Ave.

OKLAHOMA CITY

J. Earl Hunter, 536 NW 48 St.

PHILADELPHIA

Joe Winterburg, 618 Race St.

PIEDMONT

Mrs. Jo W. Shaw, 502 Security Bank Bldg., High Point, N. C.

ROCHESTER

Ed Potter, 198 Weston Rd.

ST. LOUIS

Ray Eckles, 7023 Radom

SHREVEPORT

Roena Bradford, PO Box 397

SOUTH FLORIDA

Ken Miller, 13451 Alexandria Ave., Opa-Locka

TULSA

Mrs. M. K. Hare, 2521 So. Birmingham Place

TWIN CITY

Fred Schultz, Buckbee Mears Co., Toni Bldg., St. Paul

WASHINGTON

Art Nugent, 1130 S. Thomas St., Arlington, Va.

CENTRAL WISCONSIN

Bill Zimmerman, Rt. 2, Box 531, Menasha

Newsmen Discuss Photocomp.

A series of photocomposition machines were discussed at the recent mechanical conference of the American Newspaper Publisher's Association in Chicago. Among the machines discussed were the Photon Machine, Intertype Corp.'s Fotosetter and Mergenthaler Co.'s Linofilm.

The Fairchild Scan-a-Color machine for producing three- or four-color continuous tone color separations in an hour or less, was also described.

A new air cleaner for removing ink mist from pressrooms, complete with means for disposing of the ink, was also displayed at the conference.

Using the principle of electrostatic precipitation, the device collects practically 100 percent of all air-borne mist in 12,000 cu. ft. of air per minute. The minute particles are deposited on collector plates.

The manufacturer is Trion, Inc., McKees Rock, Pa. Trion has solved the problem of ink disposal with a simple push button arrangement which releases a cleansing fluid that washes the ink into a drain with less than an hour of down time, once a week. With no ink in the air they have to breathe, Trion says, employees have improved working conditions and health; the fire hazard due to the cost of ink on duct work is eliminated and there is a substantial saving in air cooling and heating costs.

Shields Elected to Controllers

James W. Shields, of Judd and Detweiler, Inc., has been elected to the board of directors of the District of Columbia Control, Controllers Institute of America. Mr. Shields was also recently reelected as a member of the board of directors of the Better Business Bureau of metropolitan Washington.

Burnham Speaks to Craftsmen

J. V. Burnham, production supervisor and estimator for Sorg Printing Co. of Texas, spoke on estimating to the Houston Club of Printing House Craftsmen at their June meeting.

Mr. Burnham pointed out that most printing jobs are not bought on the spur of the moment but are carefully planned by the buyer. Therefore, the printer who does not carefully plan his estimate and price not only is a poor businessman "but is unfair to himself and his profession." In keeping with this thought, said Mr. Burnham, he should also be willing to turn away jobs for which his equipment is not suited to return a fair profit.

Only if each and every printer follows such a policy, he stated, can the industry as a whole expect to be a strong and profitable one.

Printing Guild Elects Officers

Russel Webster, Baker-Webster Printing Co., has been elected president of the Washington Printing Guild. Other officers elected with him were Kenneth L. Williams, Potomac Electotype Co., vice president; Robert H. King, Byron S. Adams Co., secretary; and Richard J. Evans, Judd & Detweiler, treasurer.

Cook Wins Cup

Robert Cook, of the sales department of Zabel Brothers, Philadelphia lithographers, was one of the top prize winners in the golf tournament at the annual outing of the Junior Executives Club of the Graphic Arts at the Whitemarsh Valley Country Club in June. He won the Juniors Cup.

GAA Admits Franklin Press

The admission of Franklin Press of Gaithersburg, Maryland as a member of the Graphic Arts Association of Washington, D. C. has brought the total membership of the organization to 127. Other new members include Stephenson Lithograph and Craftsman Press, both Washington lithographers.

RUTH ANSELL, of Federal Lithograph Co., Washington, D. C., left July 2, for a visit to printing plants in Germany and Russia. She is expected to return early in August.

Litho Schools

Canada—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.

Chicago—Chicago Lithographic Institute, 1611 W. Adams St., Chicago 12, Ill.

Cincinnati—Ohio Mechanics Institute, Cincinnati, Ohio.

Cleveland—Cleveland Lithographic Institute, Inc., 1120 Chester Ave., Cleveland 14, Ohio.

Los Angeles—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.

Minneapolis—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

Minneapolis—Vocational High School, 1101 Third Ave. South, Minneapolis 4, Minn.

Nashville—Southern School of Printing, 1514 South St., Nashville, Tenn.

New York—New York Trade School, Lithographic Department, 312 East 67th St., New York, N. Y.

Manhattan—School of Printing, 72 Warren St., New York, N. Y.

Oklahoma—Oklahoma State Tech., Graphic Arts Dept., Okmulgee, Okla.

Rochester—Rochester Institute of Technology Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.

Pasadena—City College, 1570 E. Colorado St., Pasadena, Cal.

Philadelphia—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.

Pittsburgh—Carnegie Institute of Technology School of Printing Management, Pittsburgh.

San Francisco—City College of San Francisco, Ocean and Phelan Aves., Graphic Arts Department.

St. Louis—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

Vancouver—Clark College.

West Virginia—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

International Assn. Pig House Craftsmen
P. E. Oldt, Exec. Sec'y.
Room 307; 411 Oak St., Cincinnati 2.

Lithographers and Printers National Association
Oscar Whitehouse, Exec. Dir.
1025 Connecticut Ave., N.W., Wash., D. C.

Lithographic Tech. Foundation
William H. Webber, Exec. Dir.
131 East 39th St., New York 16, N. Y.

National Assn. of Litho Clubs
Frederick Shultz, Sect.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.

National Assoc. of Photo-Lithographers
Walter E. Soderstrom, Exec. V.P.
317 West 45th St., New York 36, N. Y.

National Metal Decorators Assoc., Inc.
James G. Smith, Secretary
P.O. Box 506, Crawfordsville, Ind.

Printing Industry of America
Bernard J. Taymans, Mgr.
5728 Connecticut Ave., N.W., Washington, D.C.



Of course it's right! The best in the league, any league! What a batting average! And, what lasting ability, for those heavy day-after-day schedules.

The man could be talking about his Wagner Metal Decorating Equipment, for you get the maximum production and finest quality work from Wagner Equipment. And it *does* stand up!

Should you be considering a new production line or machine replacement, Ask Wagner Engineering to go over your requirements with you. There's no obligation.

When thinking of Progress — think of Wagner!

WAGNER LITHO MACHINERY

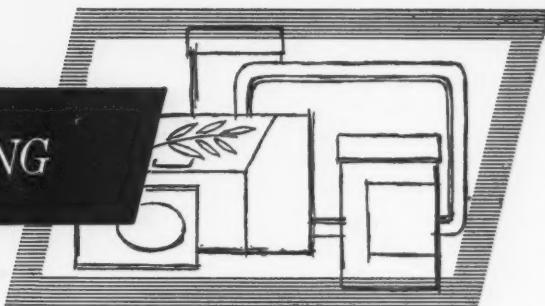
Metal Decorating Machinery

555 Lincoln Avenue, Secaucus, N. J.



Division

METAL DECORATING



J. L. Clark Issues Metal Deco. Booklet

For more than half a century, J. L. Clark Mfg. Co. has ranked among the country's leading producers of decorated metal containers and specialties. Three times in the past four years Clark entries have won awards in the Lithographic Awards Competition sponsored by the Lithographers and Printers National Association. To tell its customers and prospects about metal decorating, and particularly, how J. L. Clark performs it, the company last month issued a colorful 6 3/4 x 4" booklet telling all about itself, with pictures of company facilities and of the award winning pieces.

While much of the material is common knowledge to metal decorators, ML feels that this booklet is an excellent promotion piece that might well be emulated by other firms, and so reproduces some of the text in these pages. (Some of the photos from the booklet will be published next month in these pages.)

WITH integrated container design and manufacturing facilities at Rockford, Ill., and Lancaster, Pa., Clark is engaged in the production of custom-styled, decorated metal packaging for dry- and paste-form products in the food, drug, cosmetic and specialty chemical lines. Among many well known products manufactured by the firm are dispensers for Scotch Tape and Gillette razor blades, exterior packaging for Ray-O-Vac Leak Proof batteries, and cans for Johnson and Johnson Baby Powder and Band-Aid bandages.

Both at Rockford and Lancaster, the skillful metal decorating for which Clark is noted is carried on in spacious production areas. Rotary lithographing presses, with attached drying ovens, are in operation with attendant coating machine and oven lines. The coaters are used in the application of a base, or size coat, which provides a surface suitable for lithography (or for a paint coat,

where large areas of color are required).

Coaters are also used to apply protective finishes on the inside of a container, and to apply protective varnish over the lithographed design. Art designs, including all halftone areas, are reproduced by the presses, which print special types of ink. The various colors comprising a design are applied one at a time and with extreme accuracy to assure that the original art work is reproduced faithfully.

Adjacent to the lithographing areas are the art, photographic, platemaking and laboratory departments. Clark's integrated metal decorating divisions are operated as a vital part of the company's complete metal packaging service, which is geared to meet all container requirements from creative design through tool development and finished manufacturing.

The typical Clark container has

its beginning in the art department. Here, creative designers and black-and-white art reproduction specialists work together as a closely coordinated team. It is of interest to note that Clark conceived and designed its LPNA award-winning pieces, as well as lithographing and fabricating them.

In developing a distinctive container design, many considerations must be weighed carefully by the artist. The product being packaged must be analyzed thoroughly. The way it will be produced, the competitive market in which it will be sold, the manner in which it will be used by the consumer, all receive careful consideration.

While aesthetic taste and a flair for styling are important assets, the skillful designer relies heavily on his knowledge of sales psychology, marketing and merchandising.

The next step is the preparation of finished, or "ready for camera," black-and-white art work, a technical process in which specially trained artists adapt the designer's rendering to the actual container structure. Where complicated or unusual structures are involved, allowances must be made for the stretching and flowing of can metal in the fabricating process (which sometimes give the finished art a strangely "distorted" appearance). Actually, such distortion is merely a compensating factor, as the lines of the design are drawn straight and true when the structure is formed. Clark trains its own art

reproduction men, a process which normally takes several years.

In the photo department, glass positives are made from the finished art work. One positive is made for each primary color in the design. The artist must eliminate from each positive all except its own particular color. Finally, the completed color separations are made into "multiple" negatives in which the design is multiplied, row on row, through an exacting "step and repeat" process.

Through the years, Clark has maintained an active interest in the improvement of process and equipment which help make possible lithography of the highest quality. The firm was responsible for the development of an improved camera which permitted greater accuracy in the photographic process and assured more efficient mechanical operation. Lowered costs and better lithographic reproduction have resulted.

Hair-line reproduction accuracy is assured through a photo "transfer" process known as photo-composing.

In this process, separate lithographing press plates are made from the multiple glass negatives—again, one plate for each color forming the finished design.

The design image is transferred onto the specially sensitized metal sheet (zinc, aluminum or bi-metal). This image is reproduced in multiples required to fill a large area of approximately newspaper size, and becomes the printing surface. The end result is a plate that is receptive to greasy ink wherever it is supposed to print and receptive only to water where it is not supposed to print.

In Clark's lithographing division, the latest offset-printing technology and equipment—providing economical, high-speed production—is enhanced greatly by the individual skill and craftsmanship of the press operator. Clark has always trained its own pressmen, and the process usually takes many years.

The sheet stock Clark lithographs most frequently is either electrolytic tin plate or tin mill black plate. Hot-

dipped tin plate, sheet aluminum, nickel- or even copper-plated steel may be used as special requirements dictate.

In addition to special surface or finish requirements, can metals must meet rigid specifications for temper and drawing quality. Varying tempers are used for different parts of a container. For example, T-3 or 4 may be used for the body where forming quality and stiffness are required, and T-1 or 2 may be used for the drawn parts of a container.

The decorating sequence usually starts in the roller coater department where a size, or priming coat, is applied to the sheet. This is followed by a lacquer coat to protect the inside surface. From a trough-like fountain, each coater dispenses viscous liquid, rolling it evenly on sheets that move along a conveyor into an oven, where they are baked dry.

These ovens are precise equipment with very accurate controls. Baking

(Continued on Page 113)

Air Crash Kills Eight Continental Executives, Two Pilots



Sherwood

Wallace

Sandine

De Bliek

EIGHT executives of one of the largest metal decorating companies in the U. S.—Continental Can Co.—were killed in the crash of a company airliner last month. The air tragedy took place July 1, near Marion, O., while the men were enroute home to Baltimore and New York. Also killed, when the plane hurtled out of an overcast sky and disintegrated in a wheat field, were two company pilots.

The passengers were returning from a meeting of Continental Can executives in Chicago. The two-engine plane departed from Midway airport in that city, and was last

reported as trying to skirt a thunderstorm over northwest Ohio.

The eight executives lost in the crash were the following:

Jacob de Bliek, 44, manager of the company's plant at Passaic, N. J. He had served with the company for 22 years.

Justin M. Kelly, 46, manager of products engineering of the company's eastern metal division; with the company since 1952.

William J. Mutschler, 45, general manager of production engineering; with the company for 23 years.

Marshall D. Sandine, 48, general manager of the mid-eastern district,

eastern metals division; with the company 11 years.

Henry G. Schier, 58, manager of equipment maintenance; with the company 34 years.

Abbot W. Sherwood, Jr., 47, sales manager of the eastern metals division; with the company 23 years.

John R. Wallace, 47, product sales manager for non-food cans; with the company 25 years.

Raymond I. Weimerskirch, 46, general manager of product and material standards; with the company 25 years.

The pilots of the plane were **John R. Dunham**, 41, and **Donald M. Martin**, 40.

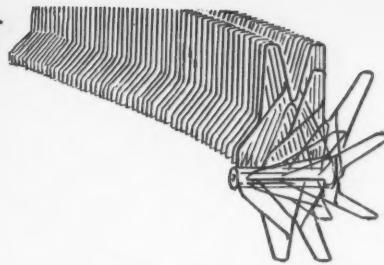
Continental Appoints Lambert

Robert E. Lambert has been appointed Pittsburgh district sales manager for the Eastern Metal Division of Continental Can Co.

He replaces **Paul A. Loofbourrow**, who is retiring after being in the can manufacturing industry since 1917.

better finished products

... maximum efficiency



YOUNG BROTHERS OVENS

for every Metal Decorating requirement

YOUNG BROTHERS Metal Decorating Ovens, built in a variety of types, are known for their excellence because Young Brothers engineers have a fundamental understanding of the baking and drying problems of the Metal Decorating Industry. Their "know-how" is based on 60 years of experience building individually designed ovens for all baking and drying processes.

A metal decorating oven is a highly mechanized production unit in a specialized field — and it will only perform to maximum efficiency if it has been built by men thoroughly experienced in every phase of oven engineering.

Through their specialized experience, Young Brothers engineers constantly develop new and better methods of handling, heating, and moving air . . . for faster, more efficient production . . . for more automatic and accurate controls so vital to the synchronized operation of the production lines. New light weight rigid, tubular wickets reduce conveyor load and help to eliminate sheet marking. Reduces necessity for wicket preheating.

You can be sure of the best when you select a Young Brothers Oven because it is the product of the finest experience in the industry — that is why it will bring added profits out of your production.

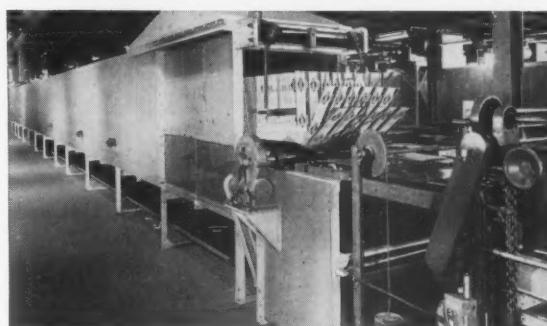
Investigate the advantages of Young Brothers Ovens today — details are available to you without obligation.



Battery of large, high speed D.E.F. Metal Decorating Ovens



High speed, combination D.E.F. and D.I.F. Metal Decorating Oven



D.I.F. Metal Decorating Oven with zone control and recuperative cooling

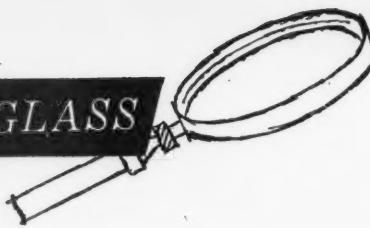
YOUNG BROTHERS CO.

1839 COLUMBUS ROAD



CLEVELAND 13, OHIO

THROUGH the GLASS



WHAT with all the humorous slogans going around, it was inevitable that someone would form a "Let's Have Better Mottoes Association." In a fine tongue-in-cheek letter accompanying a mailing piece from Colorcrafters, Philadelphia firm specializing in color printing, George Knight, who represents himself as secretary of the Delaware Valley Chapter, offers a few interesting ones we hadn't heard before: "How Do I Know What I Think Until I Hear What I Say?" and "Don't Just Sit There. Nag Your Husband."

We suppose this mania started with that famous sign "PLAN AHEAD," as a natural (and, we feel refreshing) reaction to all the pompous aphorisms that have looked patronizingly down on us all these years from wall plaques.

Try as they may, however, we doubt if the Better Mottoes Association will ever come up with anything funnier than our two favorites: "Think," and "Smile." We laugh every time we see them.

Andrew McNally III, president of Rand McNally & Co., became a "man of distinction" when Queen Elizabeth of England visited Chicago July 6. Mr. McNally was one of 511 business leaders who received "the queen's command" to attend the civic dinner arranged in her honor. He couldn't make it, however, and in sending his regrets, became a member of a very select group with 10 others in the same fix. The protocol chief for the big Chicago party, however, told anxious newshounds the invitation need not be considered an absolute command. The reasons given for declining the bids (mainly due to prior engagements) were quite in order, he said and he promised that no heads would fall.

A unique lithographic job was involved in one of the winning entries in the June printed specimen contest

sponsored by the Curtis Paper Company, Newark, Del. Dennis J. Sullivan, a salesman for the Canfield Paper Co., New York, won a \$25 prize for his entry of a reprint of an art piece.

The judges said of this entry: "The production details are very interesting and the finished product is excellent. This art piece was reproduced from a woodcut. It was done by making engravings and screening them for letterpress. After the reproduction was done by letterpress for a magazine insert, the General Wine & Spirits Co. decided to blow it up three times its original size and print it litho on a 17 x 22" Webendorfer."

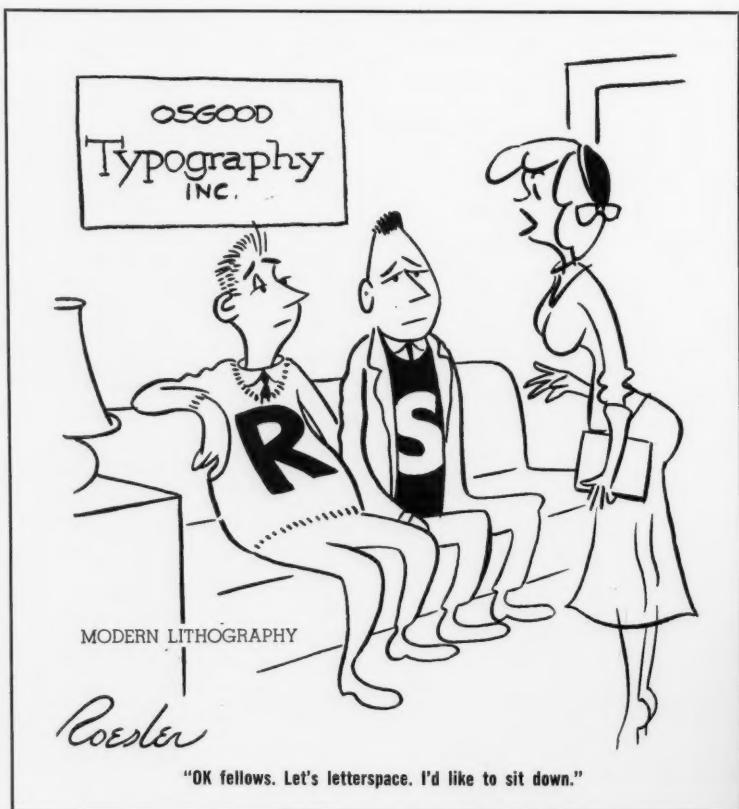
Michael-Remo & Company, Inc.,

did the separations and presswork for the lithographic reproduction. The original woodcut was by Antonio Frasconi.

Other interesting winners were lithographed by Meissner Colorcrafters, and Caltone Lithographers, both of New York.

In case you're on the lookout for a direct mail promotion piece, you might do worse than a new barometer paper offered by Excitement, Inc., 37 W. 20th St., New York. It has a "weather sensitive coating" which changes color with the touch of a moistened finger (or, of course, with changing weather). Color ranges from pink to blue, depending on whether rain or shine is on the way.

Seems like we used to be intrigued by paper of this sort back when we were spinning tops and shooting marbles, but we haven't seen any for a long time. For all practical purposes, then, the idea would seem to be a fresh one. ★



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SOONER OR LATER THEY ALL SWITCH TO ALUMINUM LITHO PLATES



American Heritage, brilliant magazine in book form, presents our country's history with impeccable scholarship—and brings its subject alive for today's readers with fast pace and striking color. Offset lithography—for covers and special inserts—plays a part in making each issue a graphic masterpiece. To meet this publisher's rigid standards (as tough as any in printing today), the lithographer switched to litho plates of Alcoa Aluminum. Please turn the page for more details.

AMERICAN HERITAGE...

Good reason why Herst Litho standardized on plates of Alcoa Aluminum

Few magazines or books have stirred as much discussion as *American Heritage* since its appearance in 1954 as "a magazine in book form." Contents are varied and extensively illustrated (like a magazine), but bound in hard covers. Following the same format, American Heritage Publishing Co., Inc., launched *Horizon*, a magazine of the arts, in 1958.

Litho plates of Alcoa® Aluminum play an important role in making each issue of both a library piece . . . superb examples of the printing art. Covers of *American Heritage* and special multipage inserts in *American Heritage* and *Horizon* are offset printed by Herst Litho, Inc. Lee Coleman, Herst vice president, writes, "To insure the consistently high quality demanded by *American Heritage*, we have standardized on deep-etched plates of Alcoa Aluminum."

Today, the overwhelming majority of printers with exacting litho assignments have switched to aluminum plates. Aluminum takes a fine, sharp, deep grain . . . permits a finer screen . . . requires less water, ink and pressure . . . gives clean, sharp impressions with good color "punch" on longer runs.

Aluminum made possible the remarkable presensitized plate, which eliminates coating equipment, re-

quires less exposure time, produces top quality printing. Lower cost and faster processing make the presensitized plate first choice for a surprising number of jobs.

Alcoa pioneered the development of aluminum for lithographic plates and today offers uniform litho-quality sheet and foil for this application. Aluminum plates are economical . . . cost less to buy, less to use.

Litho plates of Alcoa Aluminum are available through reliable manufacturers and suppliers. Let us send you a list of these suppliers and our new folder about aluminum plates. Write ALUMINUM COMPANY OF AMERICA, 1851-H Alcoa Building, Pittsburgh 19, Pa.



Peter Grant and Stahley Thompson (l-r) color-correct a *Horizon* proof with Irwin Glusker, *American Heritage* art director. Internationally famous printing consultants, Stahley Thompson Associates supervises production of all *American Heritage* publications.



Herst Litho meets *American Heritage* standards thanks to aluminum plates and the astute supervision of litho expert Lee Coleman (left), here checking final details on a black plate before last press run.



Careful craftsmanship is the rule at Herst Litho. Pressman William Gruby says that inspection of aluminum is easier. Aluminum plates run cleaner, stay cleaner. Nonprint areas don't polish up during long runs.



Aluminum's greater tensile strength prevents distortion of image when putting the plate on. And aluminum is easier to handle and store because it weighs only one-third as much as other lithographic metals.

Look for this label . . . it's your guide to the best in aluminum value



For exciting drama watch "Alcoa Theatre," alternate Mondays, NBC-TV, and "Alcoa Presents," every Tuesday, ABC-TV

YOU WILL NEVER GO BACK TO OLD- FASHIONED GUMMED PAPERS ONCE YOU TRY NASHUA DAVAC*!



MR. DUANE T. PATTERSON, PARTNER, PATTERSON-WRIGHT COMPANY, TOPEKA, KANSAS SAYS: "DAVAC GIVES YOU PRINTING RESULTS IMPOSSIBLE TO GET WITH CONVENTIONAL GUMMED PAPERS!"

When you print DAVAC, you get results no ordinary gummed paper can give you. DAVAC has a mill-perfect printing surface—undisturbed by breaking or stack calendering. Result? Less ink consumption...even ink lay...perfect reproduction.

But that's not all! Nashua DAVAC updates your whole label printing operation...obsoletes conventional gummed stock. DAVAC's matte-like adhesive—developed by Nashua Corporation—lets the paper "breathe," thus prevents curl. DAVAC stays

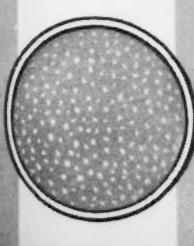
as flat as bond...prints as easily...stores safely...ends customers' curl complaints.

Throughout the country, printers like Mr. Patterson use DAVAC...and endorse it. Many use nothing else on label jobs! A trial run will show you why.

Have your Nashua distributor (he's listed on the back of this insert) give you sample sheets, and full information about modern DAVAC—the original balanced gummed paper!

*DAVAC Reg. U.S. Pat. Off. #279396

Microscopic beads of adhesive let DAVAC paper "breathe," thus prevent curl. Matte-like adhesive finish takes ink beautifully when labels must be printed on the adhesive side.



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Note the crisp, sharp printing. DAVAC'S matte-like adhesive is excellent for look-through labels, window stickers, other reverse-side jobs. DAVAC is available through the fine paper merchants listed below. Ask for trial-run sample sheets.

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ALEXANDRIA, LOUISIANA Louisiana Paper Company, Ltd.	DENVER, COLORADO Carpenter Paper Company	LINCOLN, NEBRASKA Carpenter Paper Company	NORFOLK, VIRGINIA Old Dominion Paper Company	SHREVEPORT, LOUISIANA Louisiana Paper Company, L.
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COLUMBUS, OHIO Central Ohio Paper Company	HOUSTON, TEXAS Carpenter Paper Company	NASHVILLE, TENNESSEE Bond-Sanders Paper Company	NEW HAVEN, CONNECTICUT John Carter Company Carter Rice Storrs & Bement	WILMINGTON, NORTH CAROLINA Dillard Paper Company
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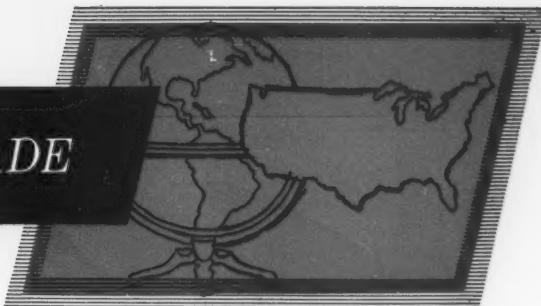
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NEWS about the TRADE



U.S.P. & L., Diamond Gardner Plan Merger

DIRECTORS of the Diamond Gardner Corp. and U. S. Printing & Lithograph Co. have agreed to merge the companies, subject to shareholders' approval, it was announced last month in a joint statement by Robert G. Fairburn, president of Diamond, and William H. Walters, president of U. S.

Estimated sales of the combined organizations and unconsolidated subsidiaries in 1959 will total about \$250,000,000 it was stated.

Terms of the merger call for the exchange of 2.7 shares of common stock of Diamond Gardner for each share of U. S. common. The proposal involves the issuance of approximately 900,000 shares of common stock of the Diamond Gardner Corp.

Approval by shareholders of both companies will be sought at special meetings to be held later in the year.

Robert G. Fairburn (l.) president of Diamond Gardner Corp., and **William H. Walters**, president of U. S. Printing & Lithograph Co., as they announced the proposed merger of the two companies.



According to the statement, Mr. Fairburn will become chairman of the board and Mr. Walters will become president of the new company. Mr. Walters will also become a director and two other representatives of U. S. will join him on the Diamond board. A new name will be selected for the combined companies.

Diamond assets totaled \$135,458,000 in 1958, while those for U. S. were \$20,453,000. Diamond has more than 10,000 employees and U. S. about 2,500.

U. S. Printing was founded in 1867 and is one of the leading producers of multi-color printed packaging and advertising materials, including labels, wrappers, folding cartons, point of sale material, outdoor posters, booklets, calendars and a wide range of other advertising products. It is especially known for color reproduction by all of the

major printing processes — letterpress, lithography and gravure. Plants are located in Cincinnati, Baltimore, Erie, Pa.; Long Island City, N. Y.; Mineola, N. Y.; Philadelphia, San Francisco, and St. Charles, Ill.

Both companies have sales offices throughout the country.

Forbes Appoints Berndt

Forbes Lithograph Manufacturing Co., Boston, has appointed Robert W. Berndt as industrial relations manager. He succeeds Kenneth G. Scheid, who resigned to join the faculty of the University of Pennsylvania.

Mr. Berndt was formerly personnel supervisor at the Wayland Laboratory of Raytheon Mfg. Co.

Louis N. Roesch Dies

Louis N. Roesch, of San Francisco, president of one of Northern California's oldest graphic arts firms, died June 18. He had been, for 47 years, president of the Louis Roesch Printing Co., which has operated printing and lithographic equipment since its establishment in 1879 by Mr. Roesch's father.

Son Buys Donley and Son

R. A. Donley, Jr., has purchased the firm of **R. A. Donley and Son, Inc.**, Cottage City, Md., from his father, **R. A. Donley, Sr.** and will continue to operate the business as printers and lithographers under the new corporate title, **The Donley Company, Inc.**

The elder Mr. Donley will continue to operate the stationery store which he retains from the old corporation.



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4773

Offset Favored for Boxes

A trend toward greater use of offset for printing overwraps for set-up boxes was noted during a panel discussion on printing at the 41st annual meeting of the National Paper Box Manufacturers Association in Philadelphia, recently.

On the panel, headed by Ralf M. Welch, president of the Barger Box and Printing Corporation, Elkhart, Indiana, several members said that offset is being increasingly used, especially when clients provide overwraps for their boxes.

Mr. Welch said that the speed of offset presses is especially advantageous in long runs. "The letterpress operation," he said, "can not match these speeds."

The panel agreed that offset plate economy is another advantage for an industry which is seeking to cut costs.

Mr. Welch also said offset printers are offering more cooperation on printing problems "while letterpress people have become too complacent."

It was also agreed that cutting costs through offset was important for the set-up box industry because printing amounts to about 10 percent of total costs.

Craftsmen Discuss Web-Offset

Five different aspects of web-offset production were discussed at the San Francisco Club of Printing House Craftsmen's June meeting.

Allan Worner, vice president of Security Lithograph, serving as chairman, spoke of its impact on color printing in the West. Henry Goodman, production manager of Lithotype Process, spoke of the financial and sales aspects of keeping up with a web-offset press, and cautioned lithographers not to go into this field until they build up sufficient sales in advance to warrant it.

Thomas Stevens, commercial pressroom foreman of Phillips & Van Orden, praised the future of color lithography as produced by web-fed presses and showed samples of work done on his firm's equipment.

Vernon Gregory, of Gregory & Falk, lithographic platemakers who have

been producing the plates for Phillips & Van Orden's big ATF Webendorfer, discussed the experimentation necessary to achieve good quality and long runs.

Clinton Shaw, California Ink Co., discussed the heat-set inks developed for web offset. Labelling them as one of the ink industry's most important developments in the past two years, he pointed out that "they have made possible the printing of publications and catalogs in volume at high speeds, with good quality, on stocks ranging from newsprint to coated."

DAVID GODFREY, vice president and sales manager of Williams &

Heintz Lithograph Corp., Washington, D. C., recently returned from a one month business tour of Europe and Saudi Arabia.

GEORGE W. FOTIS has been elected to the board of directors of the Rufus H. Darby Printing Co., Inc., Washington, D. C. O. Edward Johnson, also of Darby Printing, received a "Distinguished Salesman Award" from the Sales Executive Club of Washington, at a recent presentation.

GEORGE R. KELLER, of George R. Keller, Inc., Washington lithographic suppliers, retired in July to Marathon, Fla.

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Southwest School Forms Foundation



Officers of the Southwest School of Printing discuss the school's progress and plans for the future. (l.-r.) Philip R. North, secretary-treasurer; H. Benjamin Decherd, Jr., retiring president; Lambuth Tomlinson, president; and Bryan Snyder, Jr. vice president.

SOUTHWEST School of Printing has approved the formation of a \$75,000 printing foundation. The Southwest School of Printing is a division of Sam Houston State Teachers College, Huntsville, Tex. Directors of the school consist of leading printing and publishing executives in the Southwest.

Approval of the Foundation plan was announced at the recent annual meeting of the group.

"It is the desire of the directors that through the foundation and other industry support, capable young people seeking a career in the industry will have the opportunity of obtaining the finest training available," according to H. Ben Decherd, president of the school.

He explained further, that a long-range improvement and development plan is being outlined for the school. This plan, when completed, will call for expansion in the school's scholarship program, addition and replacement of laboratory equipment, subsidization of specialized courses and graduate study for instructors, and other factors to enhance the program.

The Southwest School of Printing two years ago was merged with Sam Houston College. It now offers a four-year program which leads to a Bachelor of Science degree with a major in printing, and a two-year

vocational training plan. During the regular term approximately 50 full-time printing students are enrolled.

At the meeting Lambuth Tomlinson, All-Church Press, Fort Worth, was elected president of the school for 1959-60, succeeding Mr. Decherd. Bryan Snyder, Jr., Johnston Printing, Dallas, was named vice president and Philip R. North, *Fort Worth Star-Telegram*, was reelected secretary-treasurer.

Recipients of scholarship awards from the Southwest School of Printing will be selected through a testing and screening procedure conducted by Shepherd Associates, Fort Worth. The scholarships will range from \$250 to \$500 a year. They will be renewed each year if the recipient's scholastic work is satisfactory.

Application forms for scholarships may be obtained by writing Robert L. Gleason, director, Southwest School of Printing, Sam Houston State Teachers College, Huntsville, Tex.

ALA Plans Meeting

United States Senator Richard L. Neuberger of Oregon will be a featured speaker at the 77th International Convention of the Amalgamated Lithographers of America. The convention is to be held Sept.

14-18 at the Multnomah Hotel in Portland, Ore.

Delegates from 92 locals throughout the United States and Canada are expected to attend. The theme of the convention will be "JOIN," which stands for jurisdiction, organizing, and international negotiations.

Majestic Publishing Magazine

Definition, a magazine for printing buyers is being published by Majestic Press Inc., Philadelphia. The first edition is entitled "Offset Color and You." Six editions are planned for 1959.

The second edition of the magazine will discuss the intricacies of catalog production. Other subjects planned are "What Printing Process?", "All About Binding and Finishing," "What You Should Know About Paper" and "A Printing Buyer's Encyclopedia."

In discussing the purpose and merits of this new business publication, Bernard Green, Executive Vice President of Majestic Press, stated: "Definition will bring answers to many of the problems printing buyers encounter every day in the planning and purchasing of printing. Future issues will help to show ways of saving time and money in the preparation of material for printing; in selection of paper sizes; and in choosing the best printing process for each job."

Cover of Majestic's *Definition*

OFFSET COLOR... AND YOU!

Definition NO. 1

BY MAJESTIC PRESS, INC.



This side of this insert is printed by Offset and the reverse side is printed by letterpress — to show the fine half-tone printing quality of the DUAL-PURPOSE coating of Cover Bristol.

ESOPUS TINTS COVER-BRISTOL

Canary, Pink, Blue, India, Green and Peach.

Basis	20x26	23x29	23x35	26x40
20x26-80	160M	209M	248M	320M

ESOPUS TINTS TEXT

Canary, Pink, Blue, India, Green, Peach and Goldenrod.

Basis	23 x 35	25 x 38	35 x 45
70	118M	140M	232M
80	160M

Sold by merchants everywhere.

Printed on Cantine's Esopus Tints 20 x 26-80 (160M) Inks by Pope & Gray.

**2-COLOR EFFECTS
WITH ONE INK IMPRESSION
or 3-color effects with two impressions**

Cantine's Esopus Tints Text and Cover papers give highly detailed, commercially perfect reproductions of fine-screen halftones by letterpress or offset. The color of the paper itself reduces the number of press impressions necessary for pleasing new color effects at substantial savings in money and press time.

THE MARTIN CANTINE COMPANY
Saugerties, N.Y.
Specialists in Coated Papers since 1888.

Cantine's **ESOPUS TINTS**

plan for Quality

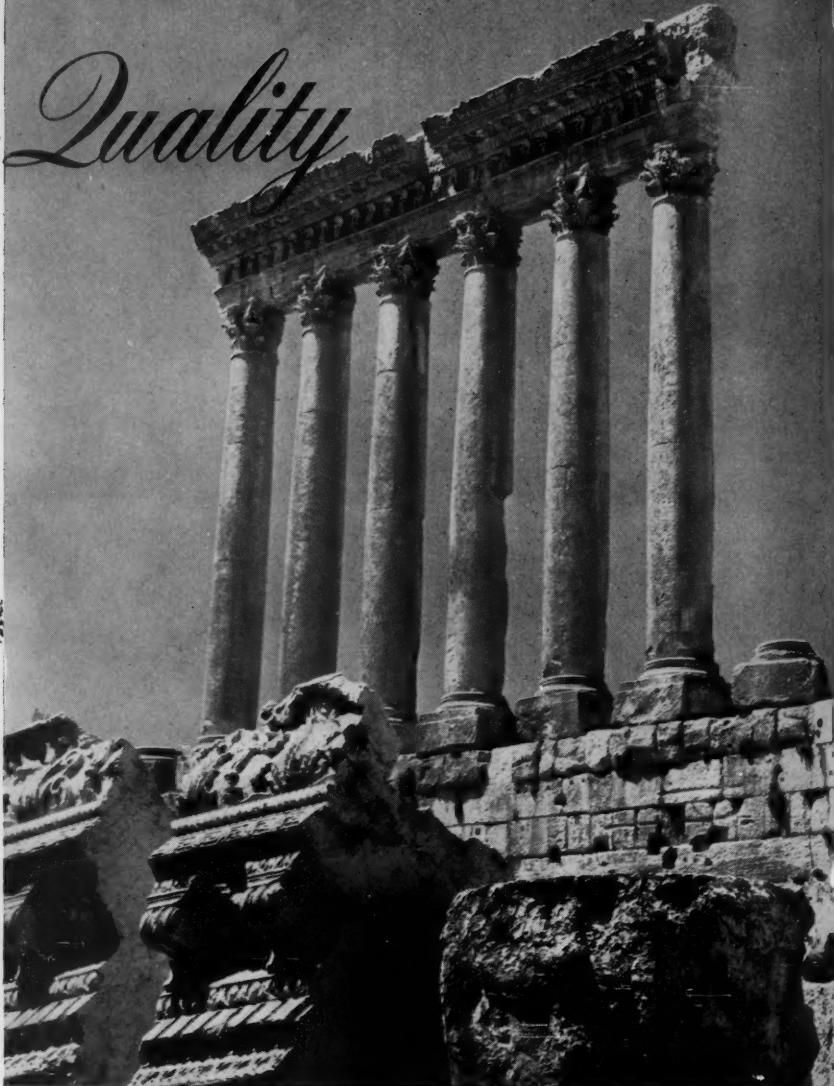


This side of this insert is printed by LETTERPRESS and the reverse side is printed by offset — to demonstrate the fine halftone printing quality of the DUAL PURPOSE coating of

**CANTINE'S
ESOPUS TINTS
Cover-Bristol**

20x26-80 160M

Made in beautiful pastel coatings that give two-color effects with one ink impression but are soft enough for the finest halftone reproductions. (See reverse side)



Pillars of Jupiter, Baalbek, Lebanon. Photo by Grant White

The chief purpose of halftone printing and lithography is to reproduce photographs in realistic detail. Cantine's Coated Papers enable the commercial printer to catch minute detail with fidelity and economy. The new Esopus Tints Bristol Covers match the popular Esopus Tints Texts in pastel shades deep enough to give 2-tone printing effects with one impression yet soft enough not to dominate the illustrations. Sold through leading merchants. Samples on request.

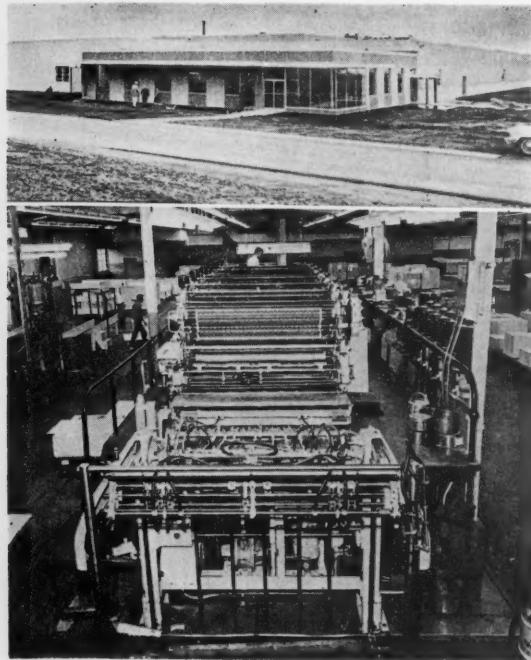
**Cantine's
COATED PAPERS**

For LETTERPRESS: Hi-Arts, Ashokan, M-C Folding, Velvetone, Esopus (Text, Cover and Post Card).

For OFFSET: Hi-Arts, Lithogloss C.I.S., Zenagloss C.2.S. Cover and Text, Esopus (Text, Cover and Post Card).

**THE MARTIN CANTINE COMPANY
Saugerties, N.Y.
Specialists in Coated Papers since 1888.**

Lord Baltimore Press Opens New Plant



A view (top) of the new Lord Baltimore plant, Clinton, Iowa, and the six color offset press installed there.

Lord Baltimore Press dedicated a new plant in Clinton, Iowa, late in June, for the manufacture of folding paper cartons. The plant will be a midwest link in its operations from coast to coast.

The new 150,000 square foot installation, now in operation, will duplicate the manufacturing processes of the company's other plants

at Baltimore, and at San Leandro, Cal. The plant will have, in addition, a six-color lithography press.

The Clinton installation will be equipped to serve customers in all industries, including many food processors and other manufacturers with multiple areas of distribution who find it an advantage to have their product packaging reproduced



J. A. Heffington

Albert P. Degen

in the Midwest for easier deliveries there.

The plant is a one story building, air conditioned throughout for control of both temperature and humidity. Its interior is finished in off-white to help provide the sanitary surroundings essential to the processors of packaged foods, who form a large part of the company's business.

A special feature of the Clinton installation is the gluing department, where die cut cartons can be folded and glued for shipment, using the first all-hydraulic gluing machine ever made.

The plant is expected to give employment to more than 200 persons.

Albert P. Degen will supervise the activities of the new plant and direct the company's midwest sales force in his new capacity as district manager. J. A. Heffington has been appointed resident manager of the Clinton plant.

ALA to Promote Union Label

The Amalgamated Lithographers of America is planning a campaign in the United States and Canada to promote its union label as a recognized seal of quality, according to an announcement made by Francis P. Slater, International president.

In connection with this campaign, the ALA has just published an "Symbol of Quality Lithography" illustrated union label booklet entitled The booklet tells the story behind the ALA label. It will be made available to purchasers of lithography in the United States and Canada.

"The skilled craftsmen of the ALA, working with manufacturers and employers, insure the continued development of new technical ad-

vances in the production of a finer lithographic product." Mr. Slater stated, "The ALA label therefore protects the consumer. It makes certain that full value is received. In this age of electronics and automation, a proper combination of skills and technology will bring a better product at lower cost."

Members of the union were cited recently by New York's Gov. Nelson A. Rockefeller for "their enlightened attitude toward technological advances in their craft, and the rapidity with which they have acquired new skills."

The commendation was contained in a congratulatory letter from Governor Rockefeller to Edward Swayduck, president of the Local 1, ALA on the 77th anniversary of the union.

Governor Rockefeller added, "The expansion of lithography in the field of graphic arts and the attendant growth of the lithographers union can be traced to a successful labor-management relationship that proudly boasts no major industrial controversy for the past 33 years."

McCandlish Wins Safety Award

McCandlish Lithograph Corp., Philadelphia, was among the firms presented with safety awards by the Safety Council of the Chamber of Commerce of Greater Philadelphia, recently.

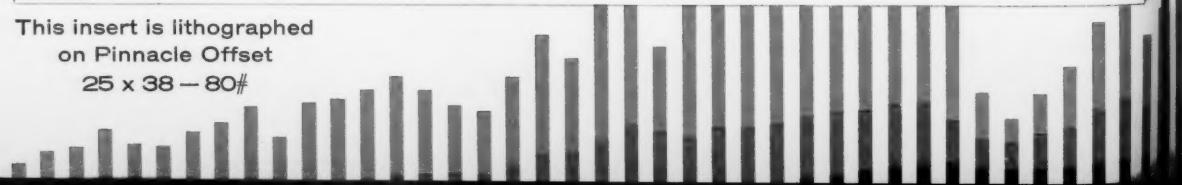
The awards were presented by Governor David L. Lawrence of Pennsylvania and Andre B. Young, president of the Chamber of Commerce of Greater Philadelphia.

ANNUAL REPORT 1958 - OTIS ELEVATOR COMPANY



This insert is lithographed
on Pinnacle Offset

25 x 38 - 80#



HOW
TO
elevate
AN
ANNUAL
REPORT

To help reflect the leadership of the world's largest maker of elevators, Otis Elevator Company chose West Virginia's Pinnacle Offset for its 1958 Annual Report.

Pinnacle is your best buy among uncoated offsets. Its blue white brilliance means sparkling halftones and razor-sharp copy reproduction. Good body and strength plus excellent uniformity assure smooth press performance. With Pinnacle's stabilized moisture control, it's easy to maintain perfect register. Superior opacity, too!

Next time the job calls for a high quality uncoated offset, see how you can meet and surpass your customers' specifications with Pinnacle!

West Virginia offers a complete line of high quality coated and uncoated offset and letterpress papers. We invite you to find out how you can benefit from West Virginia's direct mill-to-you sales policy and technical service. Write West Virginia Pulp and Paper Company, 230 Park Avenue, New York 17, N.Y., or contact an office listed below.

*Fine Papers Division
Commercial Printing Paper Sales*

Chicago 1 / FR 2-7620; New York 17 / MU 6-8400
Cincinnati 12 / RE 1-6350; Philadelphia 7 / LO 8-3680
Detroit 35 / DI 1-5522; Pittsburgh 19 / CO 1-6660
San Francisco 5 / GA 1-5104



**West Virginia
Pulp and Paper**

The Otis Elevator Annual Report is lithographed on Pinnacle Offset. Cover stock is 120# basis weight; text pages 80#; sheet size 21" x 29". The press is a Harris two color 23 x 35 offset press.



Walter G. Arader, president and new owner of Edward Stern and Co., Philadelphia. The purchase was reported in July ML (page 86).

Start Apprentice Training

THROUGH the cooperation of the Graphic Arts Association of St. Louis, and the Amalgamated Lithographers of America, Local 5, apprenticeship training is getting a new boost in St. Louis.

The industry first set up its training program in 1947 at the Lithographic Department of the David Ranken Jr. School of Mechanical Trades, operating under the "G. I. Bill of Rights." Industry members cooperated in securing equipment and qualified craftsmen to teach the courses, in accordance with the school's requirements.

After the first enthusiastic influx of students, most of them G.I.'s during the early years, the program gradually began to lag and staggered to a near halt. Employing lithographers began to withdraw support when they discovered that apprentices whom they had sponsored, and whose tuition they were paying, took jobs with other lithographers who were contributing nothing to the training program cost.

Herbert Ross, president of Ross-Gould Co., and co-chairman of the present Educational Committee of Lithographic Apprentices, says he put in the last four years gathering information on how the various lithographic schools in the country are operated and made a thorough study of the problems involved.

Last July, when a new contract was signed with Local No. 5, a

clause was written into it which provides for the collection of 35 cents a week for each lithographic employee on each union employer's payroll. This plan spreads the cost evenly to all lithographers and makes the program city-wide. The fund is to be used to train all lithographic apprentices.

The money is paid to the Graphic Arts Association of St. Louis. The funds are administered by the Educational Committee, which is made up of two employing lithographers and two representatives of Local 5. Co-chairmen of the committee are Mr. Ross, and Calvin Jack, president of Local 5. Other committee members are: Robert Wolff, of Western Printing & Lithographing Co. and Thomas Dye, of Local 5.

The committee meets monthly at the St. Louis Graphic Arts Association headquarters to set up courses and determine policy and needs of the school. The committee is presently working out plans for a Survey Course to be given at the school this fall. Purpose of the course is to give lithographic apprentices an over all knowledge of the industry.

It is expected that more equipment and a larger teaching staff will be added as the program progresses. Specific courses in the various phases of lithography will be offered in January. It is planned that these courses will also be open to journeymen.

CIT Alumni Elect Kronenberg

John L. Kronenberg was recently elected president of the Alumni Association of the School of Printing Management of Carnegie Institute of Technology. Other officers are Eugene A. Musial, secretary-treasurer; and David W. Ellis, recording secretary.

Sequoia Changes Name

Sequoia Printing & Lithographing Co. is the new name of the three year old Redwood City, Cal., combination letterpress and lithography firm previously known as the Sequoia Printing Co. Owner is Clarence M. Frank, who has incorporated the business.



Gilbert W. Bassett

Miehle Advances Bassett

Gilbert W. Bassett has been advanced from the position of marketing manager to sales manager by the Miehle Co., a division of Miehle-Goss-Dexter, Chicago.

Mr. Bassett is a graduate of the Printing Management School of Carnegie Institute of Technology. He had worked as an estimator and production supervisor in large and small printing plants before joining the Miehle sales staff in 1948.

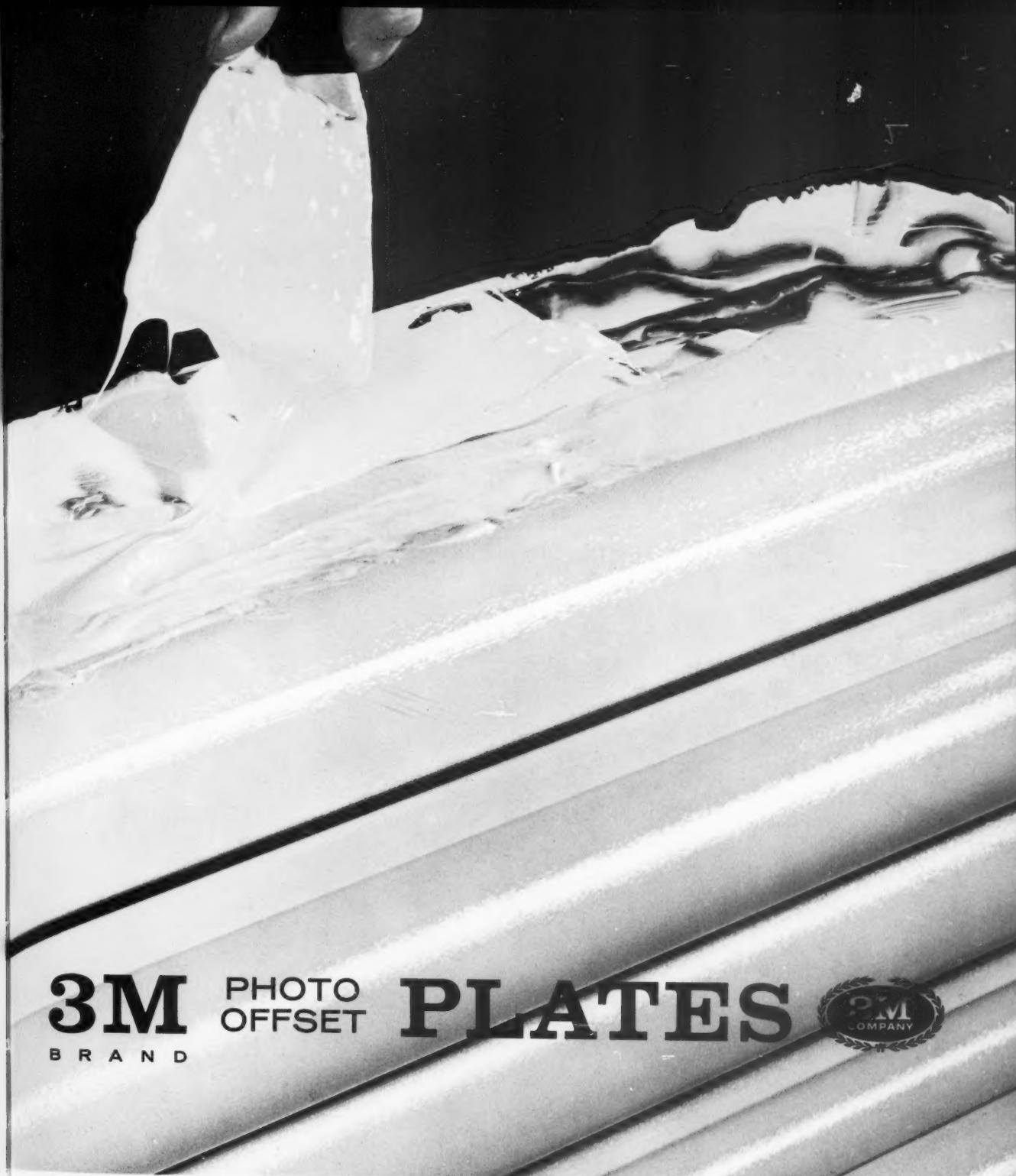
NAPL Distributing Manual

The National Association of Photo-Lithographers is distributing a Pocket Estimating Manual designed as an example of one which might be very useful to lithographers who operate on a price list basis.

E. H. Sutton Dies

Edward H. Sutton, 79, well known in the printing industry in Pittsburgh and a director of the William G. Johnston Co. printing firm in that city, died late in June at his home in the King Edward apartments.

Mr. Sutton first joined the printing industry in 1908 and thru years of experience became known as dean of the industry in the Pittsburgh area. An executive of the Johnston company, he spent 30 years with this firm, starting as a salesman in 1929.



3M PHOTO
OFFSET **PLATES**

B R A N D



PROOF:

**Quality lithography
depends on the plate**





Plate costs are only 1¢
of your litho dollar



... so buy the best

**Vivid color
reproduction...
no toning!
no scumming!**

With 3M Brand Photo Offset Plates on the press you get consistently brilliant results—like those shown by the 4-color illustration on the preceding page. Rich solids, sparkling highlights, finest details—all reproduce faithfully with no trace of scum or tone.

This performance is standard on every job. That's because these flawlessly-smooth aluminum plates are chemically treated under precise conditions and control. With this completely standard uniformity from plate to plate, ink and water balance is easy to get and to maintain.

You'll want this quality and dependability working for you. So call your supplier now. He'll gladly demonstrate the many ways 3M Brand Photo Offset Plates add quality and profit to your jobs.

Dependability wears a 3M label.

3M
BRAND

Photo Offset Plates

MINNESOTA MINING AND MANUFACTURING COMPANY
... WHERE RESEARCH IS THE KEY TO TOMORROW



"3M" is a registered trademark of Minnesota Mining and Manufacturing Company, Saint Paul 6, Minnesota. General Export: 99 Park Avenue, New York 16, New York. In Canada: P. O. Box 737, London, Ontario.

Schmidt Honors 50-Year Men

Eleven retiring employees of Schmidt Lithograph Co., six with 50 years or more of service, were recently honored at a cocktail party and banquet given by 250 of their fellow workers.

The men and their terms of service, are Herman Diedrichs, pressroom superintendent, 57 years; Bernhard Schmidt, factory general superintendent, 53; Clarence Bessing, manager, Los Angeles office, 50; Harry Anderson, purchasing department, 50; Charles Reese, foreman, carton department, 50; William Schulte, sales department, 50; John Grier, production planning, 48; Charles W. Bowen, manager, New York office, 46; Herbert Schwarzenberg, production planning, 39; Gino Biagi, foreman, paper stock, 38; George Lord, seed bag sales, 28.

Fifty-year men were presented with gold wrist watches from their fellow workers and checks for \$1,000 from the company. Men with fewer than 50 years service were presented with gifts from their co-workers and checks from the company, in accordance with their years of service.

Making the presentations were Carl R. Schmidt, president; Otto Schoning, senior vice president; Morton Schmidt, secretary; Lorenz Schmidt, vice president, and Bernhard Schmidt, general factory superintendent.

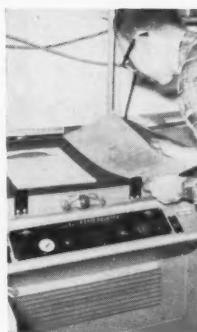
Photopolymer Plate Discussed

The Du Pont photopolymer plate can be expected to put photoengravers into the lithographic service field, according to Frank Keller of Robertson Photo-Mechanix, Inc., Chicago.

Speaking at the Western States Photoengravers Conference held in San Francisco late in June, Mr. Keller described the equipment his firm has developed for processing the Du Pont plate, and outlined briefly its possibilities for use in dry-offset. The equipment and plates will be available in limited quantities by early 1960, he indicated.

According to Mr. Keller, the processing equipment will probably

Busy Cleveland Plant Adds to Production Facilities



John Stoika (left) of A & J operates a NuArc Rapid Printer. J. Fierman (right), owner of A & J, operates press.



A & J PRINTING CO., Cleveland litho shop, has begun work on expansion plans to accommodate a large increase in its business.

The expansion includes the addition of several pieces of new equipment and an increase in floor space from 3,200 to 5,400 square feet. A & J plans to double its staff to handle scheduled and anticipated work.

Last December A & J installed

complete Ludlow equipment and has also installed a nuArc Rapid Printer to make its own plates. However, the company has no photographic department.

In the past, A & J has specialized in certificates, calling cards, store placards, bottle carrying cartons, scratch pads, snap-out style forms, sample catalog and shopping center direct mailings. Now its work will be even more diversified.

be sold outright rather than leased, and lithographic platemakers, as well as photoengravers, are expected to be among purchasers. Cost of processing equipment will range from \$7,000 to \$15,000, depending upon the versatility desired.

To Lithograph Magazine

Peninsula Lithograph Co. of Redwood City, Cal., will lithograph a new national magazine titled *CA the Journal of Commercial Art*. The first issue, of 20,000 copies, will appear in August.

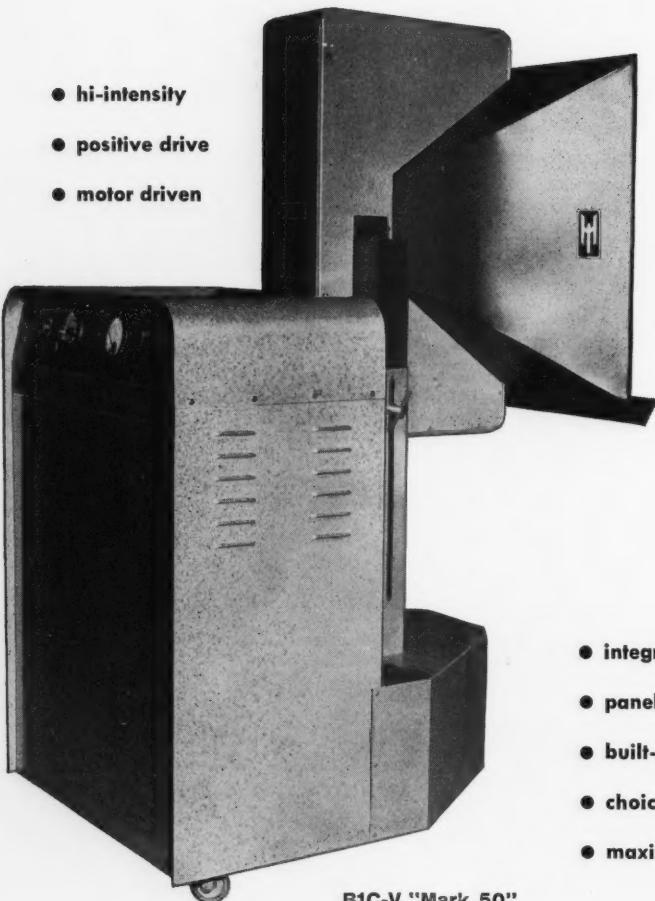
Double A Lithoplate Co., Chicago, claims the "most modern" title on the strength of owning the only two fully automatic photo-composing machines in the country. Shown looking at the punched tape control unit of one of the machines are James Melvin (l.), vice president and general manager, and Dewey Miro of Rutherford Machinery Co., maker of the machines.



NEW!

Macbeth "Mark 50" Constantarc Printing Lamp

The only completely integral fully automatic-regulating arc lamp



- hi-intensity
- positive drive
- motor driven

- integrally wired ready to connect
- panel mounted timer and controls
- built-in filtered exhaust system
- choice of correctly designed reflectors
- maximum lumen output per watt

B1C-V "Mark 50"

Standard models for 220 and 440 volts, 60 cycle AC. 100 ampere model . . . \$895.00—140 ampere model . . . \$1,185.00. Prices f.o.b. Philadelphia and subject to change without notice. For export packing add 5%. See your dealer now, or write direct for 30-day free trial.

MACBETH ARC LAMP COMPANY
PHILADELPHIA 44, PA., U.S.A.



LPNA Opposes Out of State Taxes

THE Lithographers & Printers National Assn. warned against the possibility of many printers and lithographers being subjected to taxation in states where they have no property or permanent establishments before a hearing of the U. S. Senate Select Committee on Small Business in Boston in May.

Everett Bowden, of the LPNA Cost, Accounting and Financial Management Committee, represented the Association's 200 members, before the Senate committee. He expressed great concern over "recent decisions of the U. S. Supreme Court clearing the road for increased state taxation on businesses engaged in interstate commerce."

Mr. Bowden's statement to the Committee continued: "At Forbes Lithograph Mfg. Co. we operate only one manufacturing plant. No warehousing is done outside the state of Massachusetts. We do, however, operate sales offices out of the Commonwealth of Massachusetts and our salesmen solicit business in approximately 30 states. No property other than a very small amount of office equipment in our sales offices is owned in other states.

"Based upon the decision of the Supreme Court, we would become subject to state income taxes in about 10 or 12 states merely because of our distribution of products in these states. As treasurer of Forbes, I am certain that the additional overhead expenses involved in additional accounting work, additional auditing expenses and additional work by tax counsel would exceed the amount of the taxes involved. This, of course, is in addition to the large amount of accounting cost already involved in the collection and handling of federal and state taxes for employees.

"All of this additional overhead expense first decreases the already unsatisfactory net profit of our industry and second discourages investors in small business as well as the establishment of new companies. It also has an adverse effect on the

amount of federal income taxes which our company and others in the industry pay, in that the state taxes are a deductible item, and the additional expenses of complying with the various state laws reduce taxable income.

"Another point of large concern in the Supreme Court decision is the allocation of taxable income among the various states in which we would be subject to tax. In the absence of a coordinated method of allocation it would be very probable that the total of the income allocated to each state would exceed 100 per cent of the corporation's income. This results in double taxation on a state level.

"We feel that the lithographing and printing industry should bear its part in supplying the revenues necessary for the proper functioning of state government, however, the subjection of the average printer and lithographer to taxation in states where it has no property or permanent establishments has serious implications.

"... We strongly recommend that states be limited in their author-

ity to tax corporations and such right be limited to those states where a significant amount of property and manufacturing operations are located.

"We further strongly recommend that if states are permitted to tax income from interstate commerce that a uniform apportionment formula be prescribed by Congress."

Gilbert Holding Contest

Gilbert Paper Co., is asking for suggestions on a name for its new paper machine. The machine is running alongside "Blue Boy," the Gilbert No. 3 machine, built in 1954.

The new unit is making heavy weight items, such as ledgers and index bristols. According to the company, the new machine is considerably wider, faster, and longer than the machine which it replaces.

The person suggesting the winning name will be presented with a 21" RCA color television set. The contest closes midnight, Sept. 15.

Anyone can enter the naming contest by sending a name to Gilbert Paper Co., Menasha, Wisconsin, Attn: Advertising Dept.

Four generations of the Saunders family are pictured at the 90th birthday celebration of Maurice Saunders, reported in July ML (page 87). Mr. Saunders, honorary chairman of the board, LPNA, is seated in the center with his wife, Louise. Standing (l-r) are Mr. & Mrs. Curtis Kimball and their daughter, Karen; Maurice Saunders, Jr.; Mr. and Mrs. Kenneth Saunders; Mrs. Maurice Saunders, Jr. and Kim Kimball. Seated in front of Mr. and Mrs. Saunders are their great grandchildren, Debbie and Bill Saunders.



Litho Institute Graduates 140

CHICAGO Lithographic Institute held graduation services, late in June, for a class of 140 students who had completed the required training courses in seven subjects. Sixty-five firms from Chicago and surrounding areas were represented in the group.

Certificates were awarded to 40 in the pressmanship class, 14 in photography, 24 in platemaking, 30 in stripping, 15 in litho art, 7 in estimating, and 10 in the evening survey class.

Carlton Mellick, vice president, sales, for the Miehle Co., division of Miehle-Goss-Dexter, delivered the commencement address. Following the exercises in the spacious Auto Mechanics Hall, graduates with their families and other guests adjourned to the Institute quarters across the street where James K. Martin, school director, had arranged a buffet supper.

Mr. Mellick, in his talk on the theme "We Must Work For the Privilege of Being Alive," stressed the importance of teamwork in litho shops. Years ago, he said, this idea was not popular.

"We suddenly entered a world of electronics, new materials, higher speeds, greater fidelity, larger sheet sizes, new types of plates, and new precision controls," he said. "Modern pressmanship, for instance, became as different from pre-war operations as driving a jet airplane differs from

piloting the box-kite planes of the Wright brothers era."

"All this," he went on, "made the lithographic technician's job more complicated and employers had to have the cooperation of many more people.

"But what many operators fail to realize," he said, "is that cooperation is a two-way street, because, in reality we're all on the same team. . . . The man who runs a press, for instance, is the best source of information about its functioning. He is in a position to tell his boss just where the trouble spots are. He can pinpoint problems with the machinery, inks, plates, paper and the like, so that the suppliers know what problems need solving. Or he can be quiet and thus retard improvements which would assist him in doing his job better."

PII-Rotogravure Unite

The Printing Industry of Illinois has completed arrangements with the Rotogravure Association of Chicago, under which the latter has become an affiliated section of the statewide printers association under terms similar to those prevailing in PII's relations with the Chicago Lithographers Association.

The Rotogravure Association will maintain its autonomy, with its own officers and program for promoting the interests of Chicago's extensive gravure printing business.

ATF Honors Ferguson



Pictured at a dinner honoring Herbert S. Ferguson (far right), retiring as director of sales and service at the American Type Founders Co., Philadelphia branch, are (l-r.) DeWitt G. Manley, William W. Fisher and Robert F. Ardrev.

NY & Penn. Advances Church

Herbert C. Church has been appointed assistant to the vice president of New York & Pennsylvania



Herbert C. Church

Co. He will assist in the management of all manufacturing activities. He will also coordinate the capital improvement program and direct research and development activities.

Kimberly-Clark Contest

The Printing Paper Division of Kimberly-Clark Corp. Neenah, Wis., is offering shares of its common stock in exchange for "practical suggestions applying to any phase of the printing industry."

Printers, lithographers and persons in allied fields are eligible to submit as many cost and labor-saving tips as they wish during the program.

The "swap-your-ideas" program will be integrated with a one-year advertising program in printing and graphic arts publications to be launched in August with a special announcement advertisement. Six subsequent double-page, two-color ads will appear in the same publications bi-monthly. Each of these ads will include the three top tips submitted during the previous two-month period.

One share of Kimberly-Clark common stock will be "traded" for each idea used in the ad series. In all, 18 shares of common stock will be exchanged for ideas during the one-year period.

Lanston Appoints Millham

Lanston Monotype Co., Philadelphia, has appointed Eugene N. Millham as a sales service representative in its southern district. He was formerly with J. W. Ford Co.

Mr. Millham will be located in the company's new Atlanta offices at 1362 Spring St., NW.



POSED BY LOUIS NYE, APPEARING ON THE STEVE ALLEN SHOW, NBC-TV

Offset press performance giving you ulcers? If it's paper that has you upset, settle down with fine quality, double coated Consolidated Enamels. They're trouble-free because every sheet is double coated on both sides to give maximum uniformity, greater stability and more pick resistance. They run better . . . print better . . . look better, *yet Consolidated double coating doesn't cost you a penny more*. Ask your Consolidated Merchant for free trial sheets. Make a test run to compare performance and printing quality. Then see for yourself.

Available only through your Consolidated Paper Merchant

DOUBLE COATED OFFSET—Productolith, Consolith Gloss, Consolith Opaque

FINE QUALITY LETTERPRESS—Production Gloss, Modern Gloss, Flash Gloss

consolidated

enamel
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A COMPLETE LINE FOR OFFSET AND LETTERPRESS PRINTING
Consolidated Water Power & Paper Co. • National Sales Offices: 135 S. La Salle St. • Chicago
World's largest specialist in enamel printing papers

Macaulay Receives SQC Award



Donald Macaulay, (left) receiving second annual RIT-SQC award from Byron G. Culver.

PRESENTATION of the second annual RIT-SQC award for outstanding contributions to quality control in the graphic industries was made to Donald Macaulay, president of Paper Quality Control, Inc., Chappaqua, N. Y., at the closing banquet of the 9th annual seminar for Quality Control for the Graphic Industries held at Rochester Institute of Technology the week of June 22.

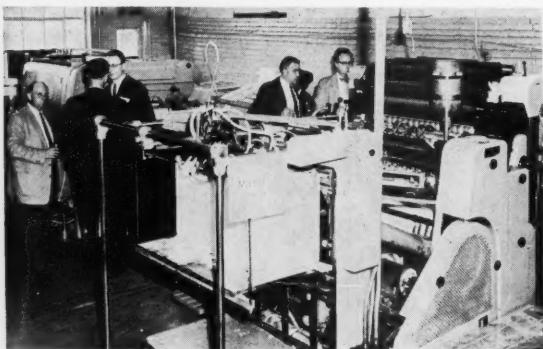
A sterling silver bowl was presented by Byron G. Culver, head of RIT's Printing Department.

Mr. Culver pointed out that Mr. Macaulay, as director of seminars and as a lecturer, has brought his knowledge and talents to the American Management Association, to colleges and foreign countries.

Mr. Macaulay, in accepting the award, said, "The success of this seminar is one indication that the concepts of quality control have reached a new plateau in the graphic industries. For years I have watched quality control struggle for existence in printing plants.

"It is possible that the institution of the quality control staff function may be the beginning of a long trend toward the use of a staff to provide service and information to management and production so that our operations can become more economic and efficient. It is the only way that printing can keep up with the great changes which are taking place at an increasing rate in the printing industry."

Miehle Holds Open House



Guests touring Fakler Printing Co. during Miehle open house held there.

Miss Kohl Wins S&V Scholarship

Dorothy Ann Kohl, of Leonia, N. J., has been announced as the winner of the 1959 scholarship



Dorothy Ann Kohl

award of Sinclair and Valentine Co., New York.

The award, based on results of the Princeton University entrance exams, a biographic essay and high school performance records, contributes \$1,000 each year for a total of four years toward the winner's college expenses.

UARCO Appoints Baur

UARCO, Inc., Chicago manufacturer of business forms by lithography and other printing processes, has announced the appointment of Adelbert C. Baur, as general sales manager. Starting 20 years ago as a salesman in Detroit, Mr. Baur has served as manager of various regional sales divisions. Since 1954 he has been assistant general sales manager.

Lithographer Hurt in Golf Match

Ronald P. Stevens, lithographer employed by the David C. Cook Co., Elgin, Ill., was struck in the head and critically injured by a golf ball during a company picnic. He was rushed to a hospital for emergency brain surgery from which he was later reported to be recovering.

Members of the Milwaukee graphic arts industry were guests of the Miehle, Dexter and Lawson divisions of Miehle-Goss-Dexter, Inc., Chicago, at an open house and press demonstration held recently at Fakler Printing Co., Milwaukee.

Of interest was Fakler's new Miehle No. 38 Two-Color Offset Press. One of the features of this press is the four-way adjustability of the second plate cylinder to assure accurate register. This adjustment can be made while running.

Dollar Volume Increased

Despite a sharp increase in postal rates, the estimated direct mail dollar volume for the first quarter of 1959 showed an increase of only five percent over the same period last year, Robert F. DeLay, president of the Direct Mail Advertising Association, reported in July.

The first three months' estimated dollar volume, based on postal revenue figures, showed an expenditure of \$475,362,867 as compared with \$451,004,089 for the same period of 1958.

Roberts & Porter Elects Skahill

John Skahill, general sales manager, Roberts & Porter, Inc. since 1956,



has been elected executive vice-president. Mr. Skahill joined Roberts & Porter in 1947 as manager of photographic sales after serving as manager of graphic arts sales for Ansco. In 1952 he was appointed R & P's western district manager, with promotion to general sales manager coming four years later.

Discontinuing Paper Brand

"Mohican" brand printing and offset papers are no longer available for new customers, of Finch, Pruyn and Co., Inc., Glens Falls, N. Y. The company said present commitments on a continuing basis with established accounts will be fulfilled until further notice.

"The continued development of our papers makes it necessary to reduce the number of paper grades which we manufacture," said John F. Rousseau, sales manager.

Cochrane Elected to NAA

William B. Cochrane, chief accountant at Judd & Detweiler, Inc., Washington, D. C., has been elected vice president of the Washington Chapter of the National Association of Accountants.

To assist him on the committee, he has appointed David Porterfield,

Jr., of Arrow Service Inc., Washington lithographers, Hugh Elliot, of National Engraving Co., and Ralph Dixon, of George A Simonds and Co., Washington bookbinders.

Elkins and Howard Honored

Washington lithographers who were recently honored by the Washington Board of Trade for 25 years of membership included Dial H. Elkins, of Batt, Bates and Co., Frank P. Howard, of Washington Plano-graph-Graphic Arts Press and Elmer M. Pusey of Judd & Detweiler, Inc.,

Donnelley to Open in Connecticut

R. R. Donnelley & Sons Co., Chicago, will construct a new 125,000 sq. ft. printing plant in Old Saybrook, Conn., where a portion of the run for *Life* magazine will be printed, bound and distributed to subscribers in northeastern states. Operations will begin in about 18 months.

Merle L. Horton Dies

Merle L. Horton, 38, eastern field supervisor for Azoplate Corp., Murray Hill, N. J., died suddenly of a heart attack June 24, in the Pennsylvania Railroad Station, New York.

Mr. Horton had been with Azoplate Corp. for five years. Prior to that he had been with the lithographic industry in Buffalo and Washington, D. C.



William J. Stevens, Philadelphia District Manager for the Miehle Co., again has been appointed moderator for the technical session at the NAPL convention. The all day Saturday program will be part of the 27th annual convention of the National Association of Photo-Lithographers. The convention will be held at the Hotel Muehlebach in Kansas City, Mo. from Nov. 18-21, 1959.

To Publish Photocomp. Book

Typographic Design in Relation to Photographic Composition is the title of a book by British typographer Stanley Morison, which the Book Club of California is publishing.

It is based upon a lecture which Mr. Morison delivered to the Art Workers Guild on the subject of letterpress printing and photographic composition. According to the Book Club's publication committee, "The general reader will find in it much of interest, especially the story of the photographic process of composition and how it developed over the past sixty years."

Dr. John G. Strange, president of the Institute of Paper Chemistry welcomes Alan S. Holliday, president of the Research and Engineering Council to the Institute in Appleton, Wis., during July. Pictured are (l.-r.) J. Homer Winkler, Mr. Holliday, Dr. Strange and John Kronenberg.





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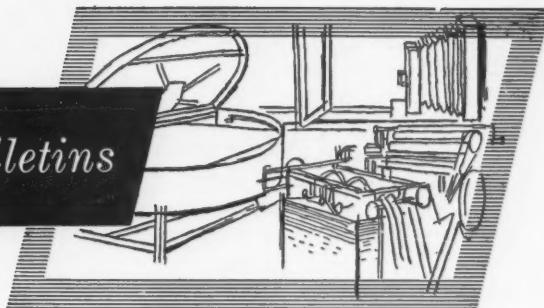


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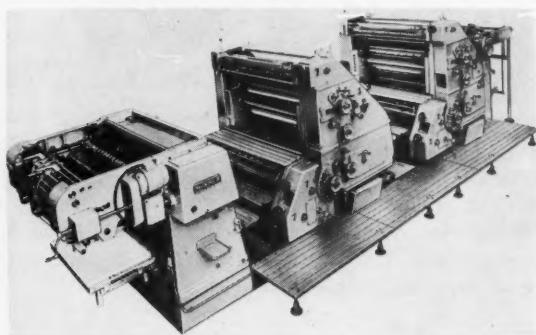
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Miehle Introduces 38" Four-Color



Miehle 38"
Four Color Offset Press

A $25\frac{1}{2} \times 38"$ four-color offset press geared to deliver 7,000 sheets an hour will be introduced at the Graphic Arts Exposition in New York, Sept. 6-12, by The Miehle Co., division of Miehle-Goss-Dexter Inc., Chicago. According to the company, this is the first four-color offset press of its size to be offered in the U. S.

The practical design of the unit was made possible by developing

a unique sheet transfer system and a method of obtaining precise register between the impression cylinders.

According to the company, the non-stop feeder of the press makes long runs possible even when working with heavy weight paper or board. In operation, the main feed elevator raises the pile to the point where approximately $4/5$ of it has been fed into the press. An auxiliary elevator then is brought up to sup-

port a series of metal rods which in turn support the remainder of the pile while the main elevator is lowered, loaded and brought back into feeding position.

A sheet catcher, which slips into place to catch sheets while the loaded main skid is removed and replaced with an empty skid, makes continuous, non-stop unloading possible, according to the company.

All four cylinders of the press are adjustable both around and across while running at full speed, insuring better register control.

Other features of the press are single point printing pressure adjustment, cam closed cylinder grippers, spring loaded form rollers, inker drive gears in enclosed oil bath and infinitely adjustable inker vibrator timing.

Additional information may be obtained from The Miehle Co., 2011 Hastings St., Chicago, to the attention of L. S. Alexander.

Device Scores Backing Sheets

A new machine that simultaneously scores and trims pressure sensitive sheets after printing has been announced by General Research and Supply Company.

Signs, emblems, nameplates or display pieces printed on unscored pressure sensitive materials may be cut apart for easy removal at the same time that the backing sheet is scored, by the General Slitter.

Sheets up to 31" wide are hand fed into rollers that carry them through the slitting and scoring heads and on to delivery stack. Specially designed scoring heads use easily replaceable injector razor

blades, and are minutely adjustable to permit a clean cut through the backing sheet without damage to the face sheet.

The General Slitter is furnished with four scoring and five slitting heads. Additional heads are avail-

The New General Slitter



able. Scores may be as close as 2" apart. The feed board is equipped with adjustable guide fence for accurate register of score and trim.

The General Slitter is 37" wide, 67" long and 35" high, and operates at a speed of 150 feet per minute. Details are available from General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Michigan.

Miller Offering Vacuum Frame

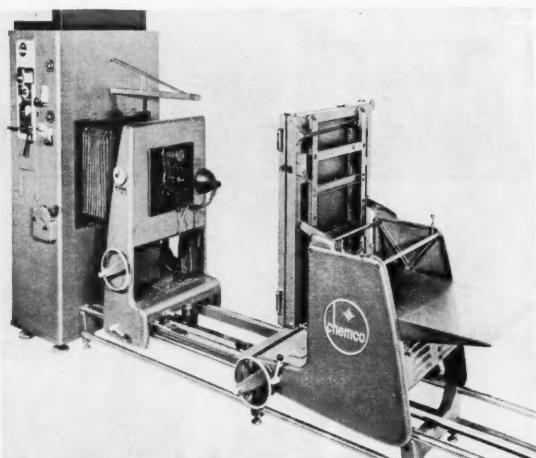
The Miller-Trojan Company of Troy, Ohio is now marketing a new type Model V Vacuum Frame for darkroom contact printing. Sizes range from 17 x 22" to 36 x 48".

Chemco Introduces 24" Roll Film Camera

CHEMCO Photoproducts Co., Glen Cove, N. Y., introduced its new Marathon 24 x 24" roll film camera at a special preview showing in Chicago late in June. Lithographers and others present at the luncheon and cocktail party in the Morrison Hotel were told that the new Marathon offers all the advantages of the older Model F series of roll film cameras, plus larger size and eight other new features.

The introduction, a year ago, of the 31" Olympian all-purpose camera, it was said, enabled lithographers, for the first time, to combine the benefits of roll film and automatic contact screen operation. Now that the basic economical advantages of roll film camera operation have become generally understood, Chemco officials anticipate that the new Marathon 24" model will extend these benefits still further through-

Chemco
24" Roll
Film
Camera



out the lithographing industry.

Following the preview showing in a private meeting room, the camera was moved to the hotel's exhibit floor for showing to newspaper production personnel in attendance at the 31st mechanical conference of the Amer-

ican Newspaper Publishers Association. The camera will also be shown at the Graphic Arts exposition in New York, in September, it was announced. Still later it will be shown at the NAPL convention in Kansas City.

ATF Introduces Web-Offset Press

A 38" web-fed offset publication press, designed to include all the engineering features necessary for high speed quality production on both the printing units and folder, is available from American Type Founders Co., Inc.

The new press has a maximum web width of 38" and a cylinder circumference of 23½". It will produce folded signatures at an operating speed up to 25,000 cylinder

revolutions per hour, according to the company.

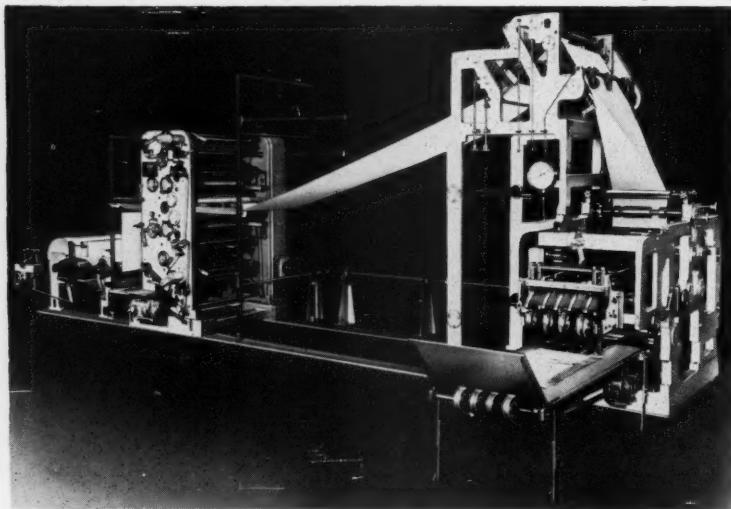
Control over the web, without additional idler roller contact, has been achieved by a patented blanket cylinder arrangement so that the web is slightly wrapped around both the upper and lower cylinder, with no possibility of pull-back, therefore eliminating any printing slur. Folding cylinders are of a completely new design, with improved tucking action and a means for permitting

rapid changing of blade and jaw elements when changing types of folds, thereby reducing the change-over time.

The company states the press will produce four types of signatures. The maximum page for the newspaper size is 19 x 23½". Tabloid maximum is 11¾ x 19". Other maximums are 9½ x 11¾" magazine size, and 5½ x 19" digest size.

The press uses the blanket-to-blanket principle. Both upper and lower plates can be changed simultaneously in a few minutes without breaking the web. Improved plate lock up design virtually eliminates plate cracking. The upper and lower unit register controls for side and running way adjustment are separate, and may be operated while the press is in motion. Full width cross perforation and slot vertical perforation are provided to eliminate corner wrinkling in folding. Ink form roller, ink ductor, and water dampener controls are all grouped for easy accessibility, the company states.

Information may be obtained from the ATF Web Division at 200 Elmora Ave., Elizabeth, N. J.



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Fold First

Two-Sided Blanket

The first two-sided offset blanket for the printing industry has been developed by Goodyear Tire & Rubber Co.'s printers' supplies department at New Bedford, Mass.

According to the company, both sides of the new offset blanket are to be used alternately to cut fatigue, thus extending blanket life more than one and one-half times normal, while the price is only one-third higher than for standard blankets.

The two-sided blanket is being produced by Goodyear's "micro-texturing" process and marketed under the trade name "Hi-Fi" in .065 and .075 gauges.

The special construction of the two-sided blanket gives it much greater comeback after each impression, according to E. R. Coate, manager of the department.

Booklet Shows Bulmer Typeface

Intertype Company, a division of Harris-Intertype Corp., Cleveland, has announced a new 20-page booklet which displays Intertype's recently introduced Bulmer type face for linecasting composition. The booklet illustrates the complete range of sizes in roman and italic faces from 6 to 14 point, together with specimens of book pages, advertisements and reports set in Bulmer roman and italic.

The booklet was printed by offset on a Harris press. It is presented as an attractive specimen and a useful tool for designing and specifying. Copies of the booklet can be obtained from Intertype Sales Promotion Department, 360 Furman St., Brooklyn 1, N. Y.

3M Issues Plate Booklet

Minnesota Mining and Manufacturing Co., St. Paul, is distributing a booklet describing the values of its lithographic plates to the printer.

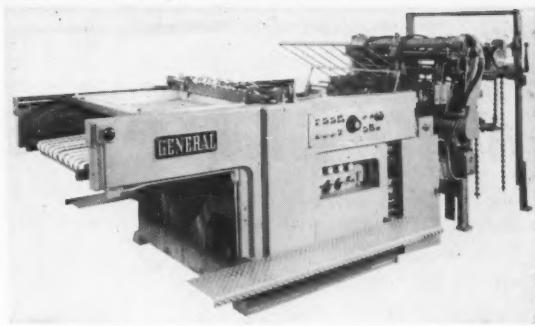
The illustrated booklet contains statements of commendation from various 3-M plate users.

Davidson Offers Paper Masters

A complete line of paper printing masters, to be known as Dav-A-Mats,

Screen Process Decorator Press by General Research

Just introduced by General Research & Supply Co., are the series C, General Silk Screen Decorators. Three models accommodate sizes 36 x 36", 36 x 44" and 36 x 48".



has been introduced by Davidson Corp., 29 Ryerson St., Brooklyn.

The new paper masters are available in three styles: straight edged, oval punched and pin bar. The line is complete in size and style to fit any press or duplicator up to 17 x 22".

Dav-A-Mats can be prepared for printing by direct-image, using a ball point pen, pencil, fabric or carbon typewriter ribbon, litho crayon, ruling or brushing ink, or preprinted by either offset or letterpress. Xerography can also be used.

Cleaner for Photo-finishing

A new cleanser which, according to the company, offers the photo-finisher and X-ray processor peak efficiency from developing tanks and recirculating systems, has been introduced by Eastman Kodak, Rochester, N. Y.

The Kodak Developer System Cleaner dissolves and washes away accumulations of calcium and silver scale which collect on the walls of tanks and inside pipes.

Bulletin on Chief 126

Complete technical information on the new Chief 126 is available in a product bulletin available from American Type Founders Co., Elizabeth, N. J.

The six-page bulletin illustrates in detail the mechanical and operating features of the new 20 x 26" sheet-fed offset press. This is the third in a series of product bulletins designed to give complete technical information on new products and supplies.

The Chief 126 is equipped with a double-loading floor type feeder, electrically operated sheet caliper, pull guides, swing grippers, wash-up device, and other features. It will provide hairline register at operating speeds up to 8,500 impressions per hour on most stocks, according to the company.

A series of open houses for most ATF branches will be held during the summer to introduce the new press to the industry. It will also be exhibited at the 7th Annual Educational Graphic Arts Exposition in New York in September.

Miehle Building Largest Offset Press



Shown being checked out at the factory prior to shipment, is the new Miehle 54 x 77" six-color offset press destined for Harrison & Smith Co., Minneapolis. According to the company, the press will handle a sheet from 28 x 42" to 54 x 77" at speeds from 3,300 to 6,000 sheets per hour. It is to be used principally to print six-color food package labels.

Litho Executive?

Of Course Not!

It's only a nostalgic backward glance to the days when life was easier and business more simple.

- Today's successful litho executive

is smart, well-groomed, up-to-the-minute.

His offices and plant are often show places. His product can be downright beautiful.

- It is likely, too, that his company is an NAPL member. As a member he draws on the combined experience of over 1100 fellow-members . . . the managerial aids and services to help assure success today — and tomorrow — and in the years to come.

- As one example, may we point out that with today's tax situation, membership may actually cost nothing?

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS
317 West 45th Street, New York 36, N.Y.

We hereby make application for enrollment as an Active (Associate) Member in The National Association of Photo-Lithographers, and if elected, agree to abide by its By-Laws and support its objects and interest as far as our time and ability will permit.

We agree that this membership will remain in force for one year, and thereafter shall be renewed automatically from year to year unless terminated by either the Association or our company as provided by the By-Laws of the Association.

We enclose herewith \$..... as our first year's dues.

You may bill us \$..... as our first year's dues.

Annual Dues for our press equipment will be:

No. of Presses	ACTIVE MEMBERS	\$
	Presses smaller than 17" x 22", (Minimum Dues \$50.00 per year) \$20.00 per press per year \$	
	Presses 17" x 22" to 22" x 28" . \$28.00 per press per year \$	
	Presses larger than 22" x 28" up to and incl. 35" x 45" \$37.00 per press per year \$	
	Presses larger than 35" x 45" . \$47.00 per press per year \$	
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BOOK REVIEW

THE FIRST BOOK OF COLOR, by Herbert P. Paschel. Franklin Watts Inc., New York. 45 pp., many four-color process illustrations, hard cover, \$1.95. Available from MODERN LITHOGRAPHY.

While ostensibly a book aimed at the teenager, this very colorful little volume should find a place in every graphic arts library and should be welcomed as an excellent introduction (or refresher) to color by lithographers, printing buyers and others. Its author, Herbert P. Paschel, is ML's Photo Clinic columnist.

Written in an easy, readable style, it tells its story without recourse to all the fancy terminology of so many technical books. It describes, with short text passages lavishly illustrated in process color, what light is, where it comes from, the effect of prisms, types of light, how the eye sees, the three qualities of a color, combinations of colors, and how the eye can be deceived by color. The book also goes briefly into color printing, showing with progressive illustrations, how the basic inks are combined to produce a wide variety of colors.

The First Book of Color seems certain to get wide readership among young boys and girls, by virtue of its selection among the 150 titles chosen for the "Traveling Elementary School Science Library" of the American Association for the Advancement of Science. But, while the book may be bought for junior, our guess is that pop will be looking interestedly over his shoulder!—H.C.C.

Brown Offers Larger Sink

The W. A. Brown Mfg. Co. has announced the development of a new plastic sink for processing larger film sizes. It contains a water temperature regulator with vacuum breaker to maintain a temperature of 68° or under.

Because of the large size of the sink, it has been designed in two separate units. Each has its own plumbing and electrical systems to allow for independent use in various locations.

One unit contains a water regulated sink, trough and three trays with an illuminated area under the developing tray. The other unit includes a viewer, wash sink, swing faucet and spray extension.

An illustrated brochure with details and floor space requirements is available from the W. A. Brown Manufacturing Co., 608 So. Dearborn St., Chicago 5, Ill.

Chemco Appoints Corelli

Dominick F. Corelli has been appointed to the sales staff of the Chi-

Dominick F. Corelli



cago branch of Chemco Photoproducts Co., Glen Cove, N. Y. Mr. Corelli joined Chemco in 1955 with the Boston branch of the company and transferred to Chicago in 1958.

METAL DECO

(Continued from Page 74)

ranges of 250°-400° are utilized with an extremely close control of plate temperature maintained throughout. The accurate baking and curing of present day metal decorating materials—alkyds, vinyls, phenolics, epoxies, etc.—are extremely important for ultimate fabricating and product protection properties. This operation is usually repeated as a base coat of paint is applied over the primer and baked in similar fashion.

The coated sheets are then moved to an offset press where, one at a time, the various colors comprising the finished design are printed. From the fountain, lithographing ink is smoothed out evenly through a cluster of distributor rollers, and applied to the press plate attached to the uppermost of three large cylinders.

The image is then transferred to a second, or middle cylinder, covered with a rubber "blanket," which, in

turn, offsets the design onto the coated sheet.

Beneath the blanket is an impression cylinder providing the precise amount of "squeeze" necessary to obtain perfect reproduction on the printed sheet. The sheet passes through much as though it were running through a gigantic clothes wringer, and it continues automatically into a gas-fired oven where it is baked from eight to 12 minutes at temperatures varying between 250° and 350°F. Following the application of the final color print, the sheet is varnished to give gloss to the design and protect it.

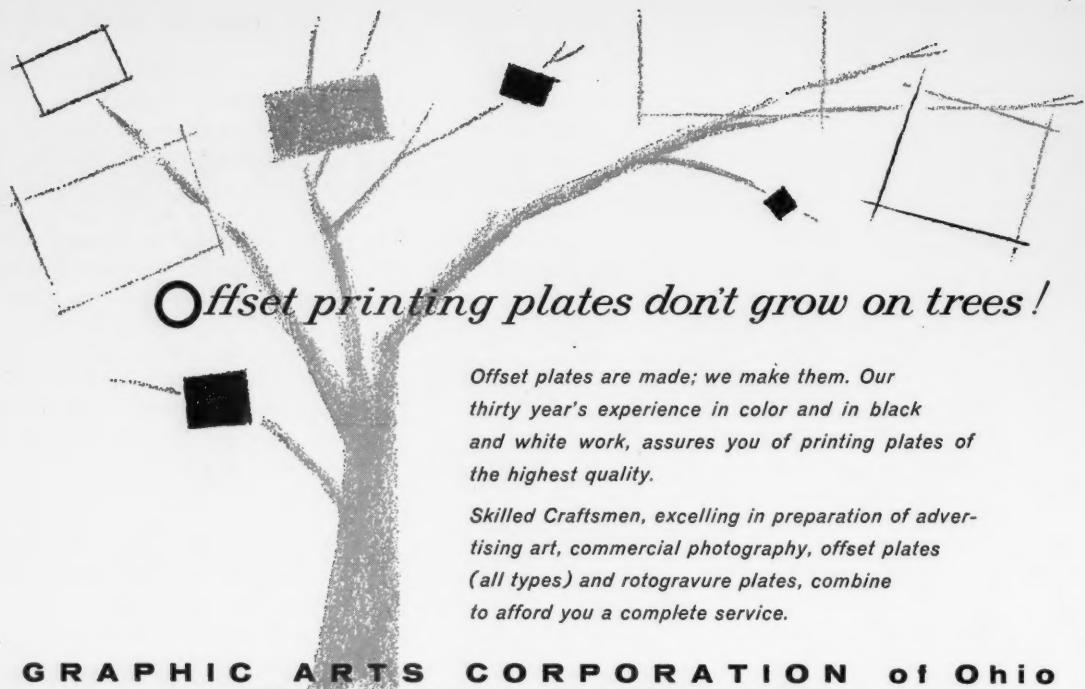
Special heat resistant inks and a system of tight quality controls assure that colors retain their true brilliance despite many trips through the baking oven. A good example of Clark's success in checking the discoloration problem is its 1955 LPNA award-winning anniversary tray, which required nine separate passes.

Clark's chemical laboratory performs the vital function of specifying all protective coatings and finishes for metal containers carrying a multitude of products. The principal objective, of course, is to prescribe finishes which will preclude the possibility of any reaction between the product and the can metal.

The chemical laboratory has established an intricate system of coating specifications involving formulas for some 4,000 different colors. This work has standardized mixing procedures, and helps Clark to give faster, more efficient service. The need for matching colors against vague swatches—often nothing more than a scrap of paper—has all but been eliminated. The new system has also been helpful to company sales representatives engaged in color-counseling with customers.

Today, fine lithography which captures all the brilliance, clarity, and subtle values the artist puts into his painting has become a Clark trademark.

The record for lithographic excellence which Clark has established certainly will be difficult to surpass. However, the company has every intention of trying.★



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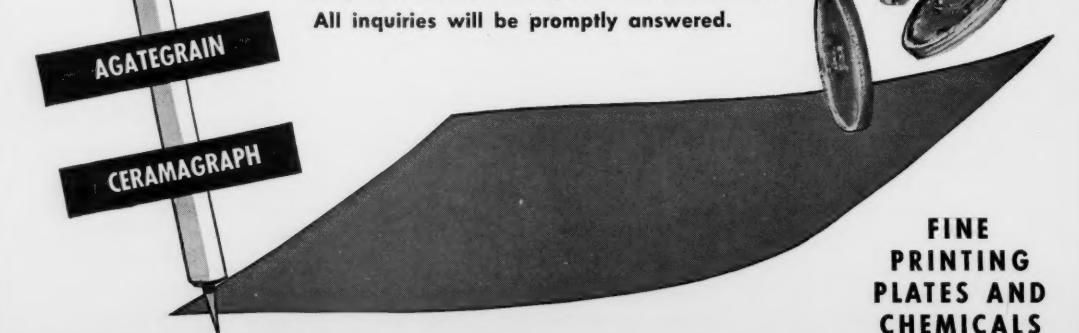
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HOW'S YOUR CR?

(Continued from Page 49)

salesman gets more business over the telephone in a month than I'll get in a year at this rate.

The Remedy Is Simple

In this extremity we must be honest with ourselves. If we're stuffy we must unbend. If we're wise guys we must learn humility. If we're flirty we must be discreet. If we're only half-safe we must buy some of that quagmire they push on TV. . . . Or we can say, to hell with it all, and then console ourselves with: "Oh well, it's only money."

Getting accepted in the inner circle of a company which buys heavily all year round may well enough be called "good salesmanship" of its own accord. However, I personally think that *salesmanship* ends with the procurement of that first order. *Good customer relations* brings in the ones to follow and as the repeat business is generally much more lucrative than the first job, it follows that customer relations is the printing salesman's biggest stock in trade.

If carried out successfully, there should come a time with your customer when you can put aside that big, toothy smile and weather commentary and just bust in and say: "I feel terrible, business is bad and I'm contemplating suicide."

If the reply is: "Well, here's a nice four-color job that should pep you up a bit"—you are really on the beam with your customer relations. In fact, if they're *that* good, please let me know how you do it. After all, I might be the guy you just froze out. ★

SPECTRA

(Continued from Page 43)

A feature of the show will be educational workshops which will be held in special workshop theatres. Visitors will be able to watch processes and equipment demonstrated in comfort, from start to finish.

Sound Recording

The visible-audible printing process developed in Japan incorporates

conventional offset and rotogravure to print a line and halftone image (black and white or color) on one side of a sheet of paper and a magnetic recording on the other. Recording an audible message may be incorporated with the printing process for mass production, or on a personalized basis, it was reported. When the printed sheet, called a Synchrosheet, is placed in a portable electronic device called the Syncroreader, a head scans the sheet and produces the sound.

Also scheduled for Spectra, which is directed by Joseph Sugarman, will be a detailed explanation of the first color Vario-Klisograph to be shown in the U.S. The automatic engraver is a combination of electronic computer, scanner and engraving machine, manufactured in Germany by Dr. Ing. Rudolph Hell.

Printing Materials Corp. will exhibit the German made "Webmaster" web-offset newspaper press, with four units and a double unwind stand, enabling two rolls to be run simultaneously.★

EXPOSITION

(Continued from Page 43)

geared to the group's golden anniversary. The meeting will run Sept. 5-9, with Mr. Giegengack scheduled to welcome the association Saturday evening, Sept. 5.

Of interest to lithographers will be a discussion of recent developments in cameras, scanners and plates by Charles Shapiro, educational director of the Lithographic Technical Foundation. Another speaker, to be announced, will talk about latest developments for the litho pressroom, at a panel session Tuesday morning. Of general interest are other talks on human relations and safety, plant planning and work simplification, and production planning and scheduling.

Edward Blank, well known New York Craftsman, is general chairman of the convention.

PIA: 'Management Awareness'

Theme of the 73rd annual convention of the Printing Industry of America will be "Management's Awareness

An important new book



'The MAGIC of Making HALFTONES'

By K. W. Beattie

A handbook of ideas and techniques that will help the beginner make better halftones in just a few days . . . an excellent refresher for the veteran. Written in a lively, how-to-do-it manner, in easy language, by a man who has nearly 40 years experience in the trade.

Order this useful book today at just \$4.25 a copy, shipped post paid any where in the world.

Your money refunded in 10 days if not satisfied.

- Scores of photos showing 'right' and 'wrong'
- Working tools: where to buy them and how to make them
- Setting camera • Focusing • Rescreening halftones • Shooting colored copy • Stripping • Platemaking • Special tricks

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YES send me a copy of 'Halftones' at the price of \$4.25.

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to Change." The PIA will meet Sept. 7-11 at the Waldorf-Astoria Hotel. The Trade Binders Section of PIA will convene Sept. 4-7 in the Lexington Hotel.

Among topics on the convention program (which was not complete when this issue went to press) will be a discussion of the innovations such as electronic data processing, and an analysis of the important new equipment and processes on view at the Coliseum. In another talk, management will be urged to study such developments as automated business and communication procedures.

The Master Printers Section and the Union Employers Section will hold separate meetings during the convention, and a joint luncheon, at which "Red" Motley, of *Parade Magazine*, will urge printers to become active in the legislative area. PIA's new service "Managing Your Business," will be on display in the Association's booth at the Coliseum.

Walter F. McArdle is chairman of the PIA convention.

Complete details on convention programs will be published in the September MODERN LITHOGRAPHY. ★

EDITORIAL (Continued from Page 35)

The Craftsmen, by the way, will be celebrating the Golden Anniversary of their founding, in 1909, so this meeting should have special significance. ML congratulates the Craftsmen on their 50th birthday and on making the slogan "Share Your Knowledge" a by-word of the graphic arts; one that, especially in recent years, has really started to mean something. ★

PHOTO CLINIC (Continued from Page 59)

have been deliberately omitted by the author. Not only does Mr. Charles feel their inclusion would be needless repetition, but why pay for such data (as part of the price of the book) when it is universally available, gratis, from the manufacturers of sensitive materials.

David Charles' book differs considerably from most books on the same subject. The methods outlined may appear at variance with the experience of other practical workers and the approach would certainly not appeal to the average theorist. But the practical methods recommended by the author are those of a superb craftsman and have enabled him to become a successful businessman in a highly competitive field. Unquestionably, *Commercial and Industrial Photography* is strictly one man's opinion. But who can question the validity of his recommendations in the face of obvious achievement?

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC, 1959, Arthur J. Dalladay, Editor. Henry Greenwood & Co., London, Pubs. U. S. Distributors, Amphoto, 33 W. 60th St., New York 23, 624 pp., plus 32-page pictorial gravure supplement. \$2.50 (board covers); \$3 (cloth bound).

This popular annual, already in its 100th year of publication, is the source of much valuable information. In view of the comprehensive nature of the book, it provides something of interest to both amateurs and professionals. To researchers and historians, a collection of *BJ Journal Almanacs* is a detailed record of progress made to date.

In the current edition, 114 pages are devoted to editorial review of new apparatus and materials, much of it of British origin. This, coupled with the advertisements, forms a valuable guide to the consumer. Also of importance is a detailed listing of text-books on photographic history, technique and applications. Eight pages are devoted to a list of chemicals used in photography with brief explanations of their nature, composition and uses.

PRINTING WITH VARIABLE CONTRAST PAPERS, M. Richard Marx, Camera Craft Publishing Co., 95 Minna St., San Francisco 5, 96 pp., \$1.95.

Graphic arts photographers who produce prints for reproduction purposes are aware of the trend toward the use of variable contrast papers. Extensive tests with all of the V.C. papers currently available were conducted by the author and his experi-

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ences and findings are outlined in this book.

The author therefore provides a great amount of basic and comparative data which the average photographer could not possibly hope to determine for himself. Mr. Marx begins by describing the difference between graded papers and variable contrast papers, stressing the pros and cons of each. He then describes and compares the characteristics of each of the papers now on the market and does the same for the various filter sets. The book goes on to describe numerous printing techniques, with particular emphasis on those techniques which can be carried out only with variable contrast papers.

Many special illustrations augment and clarify the text. Numerous charts and tables provide specific or comparative data on exposure, contrast and filters.

PAPIER UNTER DE LUPE (PAPER UNDER THE MAGNIFIER), Rosemarie Behrens, Verlag Osterwald, Stiftstrasse 2, Hanover, Germany. 2nd Edition, 76 pp., 9.80 DM, Approx. \$2.50.

This German text on paper testing presents the subject with brevity and simplicity. Even a novice would not be confused nor left with questions unanswered. But the foregoing presupposes that the reader is an accomplished linguist and quite proficient in the German language.

Following a brief discussion on the history of paper and how it is manufactured, the balance of the book is directly concerned with making practical tests of paper characteristics. Tests for fiber shape and volume, grain direction, filler material, linting qualities, moisture content, opacity, wet strength and the like are outlined in detail.

The text is augmented with many illustrations, line drawings and tips of paper samples.

LEXIKON FÜR DAS GRAPHISCHE GEWERBE (DICTIONARY FOR THE GRAPHIC INDUSTRIES), Ernst Born, Polygraph Verlag GmbH, Schaumainkai 85, Frankfurt a/m, Germany, 526 pp. 39.00 DM, Approx. \$10.

This is a monumental work which defines, from A to Z, many of the terms, methods, materials and proc-

esses commonly used in the graphic arts. It embraces photography, photoengraving, lithography, gravure and related fields. By rough count, well over 3,000 individual items are listed. Methods of historical interest are also mentioned, as are many of the pioneers who made significant contributions in their respective fields. In the latter case, though, there appear to be many notable omissions. The major manufacturers and suppliers of graphic arts equipment are listed, but this category

likewise was found to be incomplete.

This is not to say that the dictionary is lacking in coverage or was hastily thrown together. It is not very likely that anyone will ever compile such a work that includes every possible item worthy of mention. In addition to the definitions there are many charts, tables, schematic drawings and formulas.

This is a book of considerable value to the graphic arts, but, unfortunately, it is available only in the German language edition.

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MEDIOCRITY

(Continued from Page 37)

learn, they are simply called in on a job and ordered to picture "a blonde girl, three-quarters view, good bust, facing into the frame and holding a bottle of Blank's Cola which she is pouring into a tall drinking glass," and it had better look just like every other picture of a buxom blonde pouring soda into tall drinking glasses!

East: Mass Produced Work

From the east you get mass-produced advertising from the mass for the masses. Eastern direct mail is like a juggernaut, irresistible and relentless. Whether you accept it or reject it, it still flattens you into a two-dimensional paper doll that can be jiggled on their wires. You have but two choices, read and buy! And the psychosophisticates who produce this perpendicular effluvium scurry away each twilight to 50 square yards of Suburbia and try to recapture their sanity for tomorrow's bout with more kaleidoscopic myopia. A "cute" idea travels up and down Manhattan like a woman's secret and a veritable rash of "cuteness" breaks out.

From the west you get height, breadth and depth . . . sound, bold, basic colors, some straight, calm thinking and humorous, human, indulgent copy. You are permitted a few thoughts you *think* are your own, a few

judgments you *believe* you make for yourself. You are not pushed so much as you are gently but firmly led.

'Me-Two' Design, Copy and Ideas

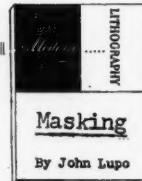
In the middle west you get "me-too" design, copy and ideas. You are buried beneath a mound of "mid" everything; scraps of papers and cards, colorless, unplanned 'office-boy' copy. Each envelope is stuffed to bursting and explodes upon opening to a confusion of exhortations, each conflicting with the other. That all too popular maxim of taste, "if a little is good, more is better," is being played to end in bitter nothingness. Design is as flat as the prairies, colorless as slate and barren as clay.

The most unfortunate phrase the middle-west ever heard was "there is nothing new under the sun." Ever since, residents of this area have believed that all art work and design must simply be a revision of old ideas. Only a few brave companies try to raise the flag for mid-American originality.

Budgets may be low and it may be that interior organizations need outside help to raise them to the color point, but there is plenty of room even on a low budget for fresh and interesting design. Expansion in the lithographic industry in the middle west depends upon a concerted effort being made to raise our sights for both color and design. Each one of us is going to have to help to make middle western lithography again dominant in the graphic arts field.★

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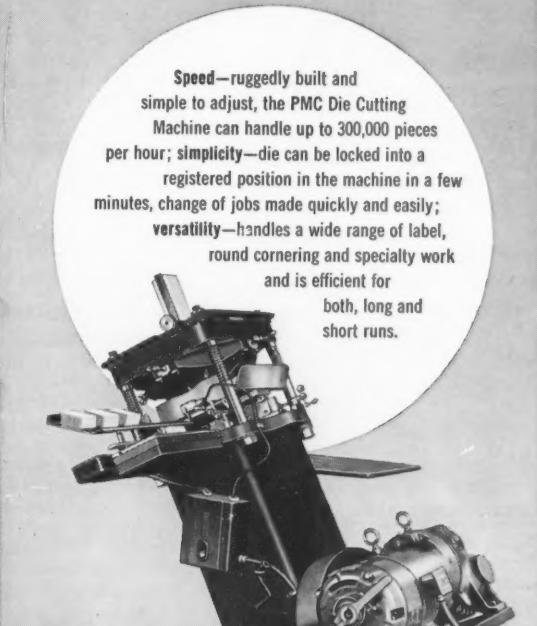


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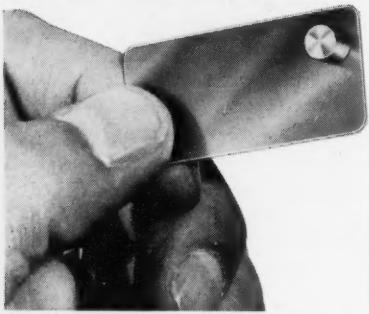
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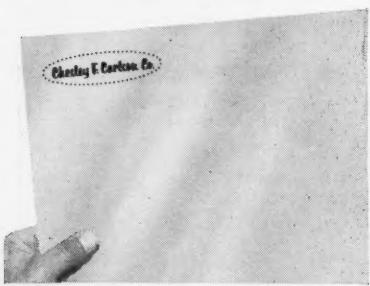
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SCHMIDT LITHOGRAPHIC CO., San Francisco, has added a Rutherford photo-composing machine, installed by Culberg & Dorn.

WALTER CRUICE, of Pohlman Studios, has been elected president of the Graphic Arts & Advertising Guild of Milwaukee.

TECHNICAL BRIEFS

(Continued from Page 69)

1950, over \$500,000,000; 1958 estimates approximately \$900,000,000.

EPOXY RESINS FOR METAL DECORATING. Charles H. Graff. *Modern Lithography*, Vol. 27, No. 3, March 1959, pages 77-9, 3 pages. A brief history of epoxy type resins is given. Present consumption (1957) is 28,000,000 lbs., of which 18,500,000 lbs. went into surface coatings. Various grades and trade names are listed and physical characteristics described. A six title bibliography is given.

Graphic Arts — General

XEROGRAPHY AND BOOKS. F. C. Francis. *Modern Lithographer and Offset Printer*, Vol. 55, No. 1, January 1959, pages 14, 16-17, 3 pages. A description by the keeper of printed books at the British Museum of the use of the Xerox Copyflo machine for reproducing out-of-print books.

USE OF VACUUM IN ROLLER COATING. Hector Audino. *Modern Lithography*, Vol. 27, No. 4, April 1959, pages 61, 63, 2 pages. A paper conveyor is described for use in conveying lacquered sheets through a drying oven. This is based on a vacuum gripper bar and is proposed as a novel sheet control system for other operations where it might be suitable. Broader use of the principle is suggested.

WHAT WILL BE THE SUCCESSOR TO FLATBED LETTERPRESS? John W. Rockefeller, Jr. *Modern Lithography*, Vol. 27, No. 3, March 1959, pages 34-5, 131, 3 pages. ATF and Miehle have announced discontinuance of production of some flatbed letterpress models. The candidates to take the place of flatbed letterpress as it is expected to gradually lose ground are discussed with their advantages and disadvantages. These include: rotary letterpress, gravure, dry offset, silk screen, and offset.

BOOKBINDING SPEED LIMITS. Fred P. Hofferth. *Graphic Arts Monthly*, Vol. 31, No. 4, April 1959, pp. 20, 22, 24, 26, 4 pages. (Excerpts from a case history presented at recent Fourth Production Conference of P.I.A. in which actual production problems and their solutions are described.) Several experiences are related out of the operation of the American Book Company bindery showing how production can be speeded up. Part of this was related to personnel understanding, but the most notable was the relocation of machine controls for the convenience of the operators.

HOUSE ORGANS — BOOM FOR THE PRINTER. Russell J. Jondoli. *Graphic Arts Monthly*, Vol. 31, No. 2, February 1959, pages 44, 46, 48, 50, 52, 5 pages. The quantity and quality of house organs had gone up since World War II, even boomed. A dozen or more have press runs of over a million.

Circulation	Number of publications
Under 5,000	2,300
5,000-10,000	750
10,000-50,000	700
50,000 and over	250

And many more unlisted. The total circulation of these external house organs approaches 150,000,000. 2½ times the per issue figure for daily newspapers. The printer is advised on how to get some of this business.

THE CHALLENGE OF COLOR IN THE PRINTING INDUSTRY. PART 1. UNDERSTANDING COLOR'S IMPORTANCE. Alfred De Martini. *Graphic Arts Monthly*, Vol. 30, No. 12, December 1958, pages 66, 68, 70, 72, 4 pages. Color is becoming increasingly important, especially in merchandising. Most color printing is one or two solid colors plus black, not process color. Author suggests smaller printing concerns go after this non-process color work, using a promotional book as outlined. The importance of skilled personnel in color work is emphasized.

THE CHALLENGE OF COLOR IN THE PRINTING INDUSTRY. PART 2. HELPFUL HINTS. Alfred De Martini. *Graphic Arts Monthly*, Vol. 31 No. 1, January 1959, pages 66, 68, 70, 72, 74, 76, 78, 7 pages. Final part. The importance of the ink maker and the pressman in matching color is emphasized. The author urges less use of raw primary colors, more understanding and use of other and less intense colors. The color wheel and complementaries and their use are explained. Cautions are given on the use of color on type matter. He explains the influence of the viewing light on color perception. The color and coating of the paper have an effect on the printed result. The color systems listed include Ostwald, Munsell, Container Corporation's Color Harmony Manual and Martin-Senour's NU Hue System. Color measuring instruments are coming into use but cannot entirely replace the human eye. The aesthetic appeal of color is given as a challenge and an opportunity.

LOW-COST PLANT MAINTENANCE CAN BE BUILT-IN. Tom Friedman. *Graphic Arts Monthly*, Vol. 31, No. 3, March 1959, pages 60, 62, 64, 3 pages. The author, an architect, tells of construction methods and materials which can be used in the original construction of a building to yield a quick and substantial return in lower operating costs and over-all increase in plant efficiency. Some of the specific examples given apply to: floor construction, roof deck, type of walls, interior doors, and toilet rooms.

CHARACTER SHAPES ARE SET FOR MAGNETIC PRINTING. Anonymous. *Inland and*

American Printer and Lithographer, Vol. 142, No. 6, March 1959, page 51. American Bankers Association announces agreement on character shapes. E-13/B fonts or matrices are available from A.T.F., Linotype, Intertype, Monotype and Ludlow. A.T.F. and Intertype are 10 point, Linotype, 12 point. No standard font scheme or keyboard; printer must tailor this to fit his present layout. The A.B.A. is preparing a specification on magnetic printing. See also in the same Magazine: Magnetic Ink Printing on Checks Features Lithographers' Meeting. Mildred M. Weiler, pages 61, 108. Type Fonts of Magnetic Ink Characters. A.T.F. News Release on page 86.

FLUORO TRICOLOR LOWERS COST OF ENGRAVING AND OFFSET PLATES. Anonymous. *Printing Production*, Vol. 89, No. 3, December 1958, pages 76, 128, 130, 3 pages. Negatives from pre-separated art do not require hand opaquing when the image is drawn with Fluorographic paints on Mylar. An ultraviolet filter is used at the camera, which records everything as black when drawn with the ultraviolet absorbing paint.

QUANTITATIVE EVALUATION OF COLOR PERCEPTION: AN HYPOTHESIS. E. Hoyt De Kleine. *Journal of the Optical Society of America*, Vol. 48, No. 10, October 1958, pages 722-25, 4 pages. Characteristics of other photochemical processes are cited, which might also pertain to those of the retina. By assuming such relationships for retinal receptors, hypothetical formulas are derived for conversion of tristimulus (CIE) values to physiological terms presumed to represent color perception. Substantial agreement between these physiological functions and actual observer response (ideal Munsell system) indicates a close degree of correlation. This approach is suggested as a basis for studying the problem of balanced perceptual color spacing.

LEVEL—IMPRESSION PRINTING . . . CAN REVOLUTIONIZE LETTERPRESS. Nelson B. Coleman. *Graphic Arts Monthly*, Vol. 31, No. 3, March 1959, pages 8, 10, 12, 14, 16, 18, 20, 22, 24, 9 pages. The first part of this article consists largely of the history of efforts made at Curtis Publishing Company to develop level-impression printing for use with high speed multicolor letterpresses. This history goes back to 1905-1908 and the early McKee treatments. Work on cast curved electrotypers, uniform make-ready stock, work on rollers and inks, and development of plate catches are included.

LEVEL-IMPRESSION PRINTING . . . CAN REVOLUTIONIZE LETTERPRESS. Part 2. Nelson B. Coleman. *Graphic Arts Monthly*, Vol. 31, No. 4, April 1959, pp. 42, 44, 46, 48, 50, 52, 54, 7 pages. This is an unusually informative article giving Curtis Publishing Co. experience in developing level-impression printing for high speed rotary letterpress. Reasons are given for arriving at the procedures and specifications used in their work. Photoengravings, four-color wet proving with inks designed for the purpose, electrotyping, press makeready are all a part of the procedure described. Press speeds of 1600 ft. per min. and runs of 6,700,000 impressions without replace-

ment of a plate for wear are cited as compensation for the efforts involved.

SPECIAL PROGRESS REPORT ON DU PONT PHOTOPOLYMER PRINTING PLATES. Paul H. Smith. *Graphic Arts Monthly*, Vol. 31, No. 3, March 1959, pages 212, 214, 216, 218, 220, 5 pages. A report given February 4, 1959 before representatives of seven national graphic arts trade associations and five international unions. Highlights of the history of the plate are that it has been in research for ten years and the present program absorbs more than a million dollars a year. The plate is not yet available commercially, but is in field trial in several places mentioned. The forms on which the plate is to be offered are given. Maximum size (for the present) will be 20 x 24". Data on field test results are given briefly. One run was 1,200,000 impressions. "Combination text and halftone plates are made as easily as all text or all halftone." The economics are discussed, based on the present price of about \$10 per square foot. ★

FLUFF TESTER

(Continued from Page 61)

paring one paper with another for fluffing characteristics. The instrument should also prove useful to papermakers. The assessment of small mill trials is a simple procedure because the quantity of paper required for the test is small, and all papers can be tested under reproducible conditions. ★

GOOD PLANNING

(Continued from Page 55)

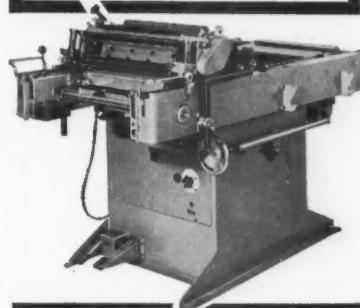
end tapes should be kept on hand.

Plate and blanket packing changes on the press can be speeded if a supply of sheets cut to the proper sizes are available. These sheets should graduate in thickness from .001 to .004" and each group should be a different color. In this way, the operator can visually select the combination needed to obtain the proper packing heights.

Quick Blanket Changes

To simplify blanket changes, a spare blanket should be premounted on blanket bars and carefully checked for micrometer reading. The reading can be written on the blanket back with a soft pencil. This system not only provides a fresh blanket should it be needed, it also

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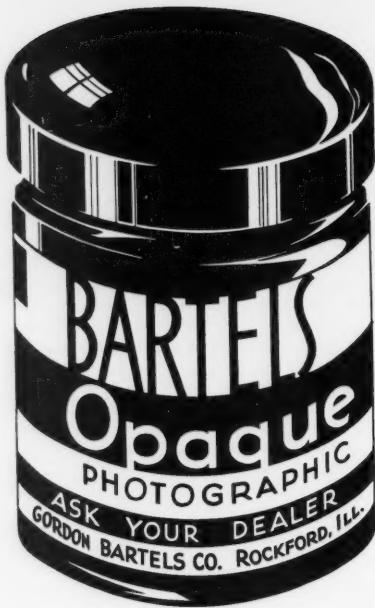
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allows the pressman to rotate his blankets on the machine and prolongs blanket life and usage.

The "plan ahead" phase starts at the very beginning of the run, when the job jacket is handed to the pressman. He should take the time to read it carefully and understand the entire work order and the contents of the jacket. Office employees, clerks and supervisory personnel occasionally make errors, which will cause a great many headaches, reruns, and rejected jobs if they are not detected. They can be avoided by a thorough recheck of the work ticket. In addition to spotting errors, the pressman will get a much clearer picture of what is expected and any questions he may have about the job can be explained and clarified *before* the job goes to press.

A clip-board or suitable box should be placed near the press and the jacket kept there to avoid misplacing it. As the job progresses and is completed, all information necessary to keep a clear record of the work should be recorded on the job ticket.

An ink use record also is of vital importance. The manufacturer's name, the color, number and amount used as well as any alterations made in the ink should be noted. If the ink used was matched in the shop, the formula should be clearly written to eliminate guess work on any future reruns of the job. Many operators keep a special ink data book or card file on all the ink they use. It serves as an additional source of information should any question arise concerning the job.



Printed samples of the work should be placed in the jacket, and, in the case of multi-color runs, progressive color sheets should be included. Many pressmen make a practice of setting aside a dozen or so full press sheets from each job. These are stapled together and kept in an empty paper carton or file of some kind. In this way, should samples be needed for reruns or for planning similar jobs, they will be available.

The stock to be used should be brought to a place convenient to the press. Skids, cases or cartons of paper which must be opened should, if possible, be handled by an assistant, helper or other such worker to free the pressman to do more important work.

The list of "plan ahead" ideas is endless and the alert offset operator can see many opportunities in their application to his everyday work. The "think ahead" pressman doesn't regard his job as drudgery. Rather he is aware that it can be a stepping stone toward a better and brighter printing future.★

SUPERVISORS

(Continued from Page 51)

pervision as quickly as possible.

2. To provide strong, broadly trained reserves for any supervisory job which might arise, and
3. To provide a background of development for positions beyond first-line supervision.

The framework of the program which has been evolved to meet these three objectives is divided into two phases. The first phase is what we might call the *basic year*. During this year, we attempt to provide the trainee with working assignments in a selected manufacturing department which will enable him to obtain a working knowledge of the complete departmental operations, provide him an opportunity to carry the full responsibilities of as many different jobs in the department as possible and to develop a fair degree of skill in at least one of the more responsible craft jobs in the departments. During this year he will also be given special project assignments of a department-level problem-solving nature to provide

finest quality
color
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an early opportunity for acquainting himself with management responsibilities and also to provide a basis for appraising his management aptitudes and skills.

The second phase of this program will see the trainee gaining additional craft skills in the same manufacturing department plus additional special projects and assignments of the type mentioned above. He will also be used to fill in on vacations for foremen or in any staff jobs within the manufacturing division. He will begin orientation contacts of one or two weeks duration in other manufacturing departments which are functionally adjacent to or dependent on his assigned department. Each step of the above outlined program is planned by the department superintendent subject to the approval of the director of manufacturing and with the assistance of the managerial development staff.

The above described programs must be the result of thoughtful planning by members of management. They should involve the participation of the men to be trained even in the planning stages. Finally, the programs need to be flexible and this flexibility should be exercised whenever evaluation shows the need. Although formal evaluation procedures have not been enumerated, I believe that it is a good rule to build the steps for evaluation into each program at the time it is conceived.★

Crescent Building New Plant

A new ink manufacturing plant is being built in Atlanta, by Crescent Ink and Color Co. of Georgia. The



new quarters will be in a one floor, 16,000 square foot plant, to be located at 1040 Grant St., S.E. The new plant was designed by Walter Hamilton, the company's plant manager in Atlanta. The new building is functionally designed to manufacture

inks for lithography, letterpress, flexography and rotogravure.

RB&P Opens New York Office

RB&P Chemical and Supply Inc. has opened a sales office to serve the

Harold Gross



New York metropolitan area at 43-20 43rd Ave., Long Island City.

Harold Gross is sales manager for the office.

Handbook on Typefaces

PRACTICAL HANDBOOK ON DISPLAY TYPEFACES FOR PUBLICATION LAYOUT, by Kenneth C. Butler and George C. Likeness, Butler Typo-Design Research Center, Mendota, Ill. 176 pp. Illustrations of every type face described. Paperbound, \$4.75, Cloth \$7.

The series of idea books produced by the talented personnel of the Butler Typo-Design Research Center, of which this is the latest, are a very worthwhile addition to the library (or rather the desk, where they will be handy to use) of any publication office. In addition, any creative lithographer can make good use of these volumes with any number of jobs that pass through the plant every week.

The latest volume is not just another type book. It is a well thought out presentation of some much needed information about type faces, in addition to illustrations of all of them. Attention is paid to most popular display typefaces, print sizes available for more than 2,000 display faces, inherent qualities and uses of the type, suggested substitutes for unavailable faces, manufacturers of the faces, and a showing of some of the cold composition faces, now becoming popular.

Last year Butler issued Volume No. 5 in this series, another excellent work. It is a 112 page *Layout Scrapbook*, displaying 21 layouts without illustration, 19 with one illustration, 15 with two, 15 with three, 15 with four and 16 with five or more. The price for that one is \$3.75 (cloth-bound only). *H.C.C.*

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A. Gordon Ruiter has been appointed vice president of technical sales services by Bright Lithographing Corp., New York. Mr. Ruiter

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was formerly superintendent of the printing division of Forbes Lithograph Co., Boston. He is also past president of the International Association of Printing House Craftsmen, an author of many articles and a lecturer on printing production.

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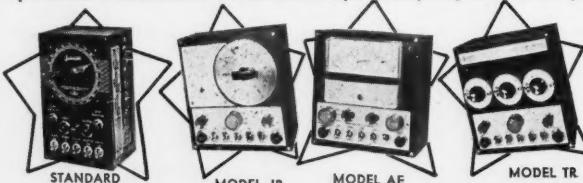
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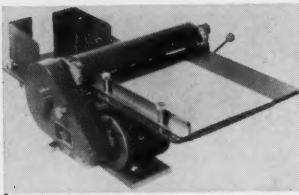
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INDEX to ADVERTISERS

A

Alien Associates	126
Aluminum Co. of America.....	79-80
American Graded Sand Co.....	114
American Type Founders, Inc.....	21-28
American Wood Type Co.....	126
American Writing Paper Corp.....	June
Amsterdam Continental Types and Graphic Equipment, Inc.....	121
Anchor Chemical Co., Inc.....	May
Anesco	15
Artisto Grid Lamp Products, Inc.....	July
Azoplate Corp.	16

B

Baum, Inc., Russell Ernest.....	119
Bartels Co., Gordon.....	122
Beckett Paper Co.....	July
Bell-Hortenstine Co., The.....	124
Bingham's Son, Sam'l, Mfg. Co.....	9
Bridgeport Engravers Supply Co.....	July
Brightype Service	June
Buckee Mears Co.....	July
ByChrome Co., Inc.....	124

C

Cantine Co., Martin.....	91, 92
Carlson Co., Chesley F.....	120
Champion Paper Co.....	77, 78
Chemco Photo Products Co.....	17
Chicago Litho Plate Graining Co.....	124
Consolidated Water Power & Paper Co.....	103
Crescent Ink & Color Co.....	July
Crown Zellerbach Corp.....	July
Cromwell Paper Co.....	3rd Cover
Curtis Paper Co.....	July

D

Davidson Corp.	31
Dexter Co., The, Div. of Miehle-Goss-Dexter, Inc.....	July
DiNoe Chemical Arts, Inc.....	10
Douthitt Co.	June
Dow Chemical Co.	83, 84
du Pont de Nemours & Co., Inc., E. I.	June

E

Eastern Fine Paper and Pulp Div. of Standard Packaging Corp.	18, 19
Eastman Kodak Co.	53

F

Finch, Pruyn & Co., Inc.....	June
Flint Ink Corp.	June
Friden, Inc.	56

G

Gegenheimer Co., Wm.....	32
General Printing Ink Co., Div. Sun Chemical Co.	June
General Research and Supply Co.	8
Gevaert Co. of America, Inc., The	2nd Cover

Gilbert Paper Co.	34
Godfrey Roller Co.	June
Goerz American Optical Co., C. P.	July
Goodyear Tire and Rubber Co.	7
Graphic Arts Corp. of Ohio.....	114
Graphic Supply Co., Inc.	June
Gurin Rapport Co.	June
Grumbacher, M., Inc.	July

H

Haloid Xerox Inc.	July
Hamilton Mfg. Co.	July
Hamilton Paper Co.	106
Hammermill Paper Co.	July
Hantscho Co., Inc., George.....	88
Harris Intertype Corp.	July
H & H Products, Inc.	July
Hill Rubber Co., Inc.	July
Howard Paper Co.	July
Hunt Co., Philip A.	July

I

Ideal Roller & Manufacturing Co.	July
Ilford, Inc.	July
Interchemical Corp.	June
International Paper Company	29, 30

J

Jomac Products	July
----------------------	------

K

Kemart Corp.	July
Kimberly-Clark Corp.	12, 13
KLM Royal Dutch Airlines.	128

L

Lanston Monotype Co.	54
Lawson Co., The, Div. of Miehle-Goss-Dexter, Inc.	11
Leedal, Inc.	July
Litho Chemical & Supply Co.	6
Lithographic Engravers & Plate-makers Association Inc.	July
Lithoplate, Inc.	4th Cover
Ludlow Typograph Co.	June
Luxometer	124

M

MacBeth Arc Lamp Co.	100
Mallinckrodt Chemical Works	July
Manhattan School of Printing	126
Mergenthaler Linotype Co.	July
Miehle Co., The, Div. of Miehle-Goss-Dexter, Inc.	60
Miller Printing Machinery Co.	July
Minnesota Mining & Manufacturing Co.	97, 98

N

Nashua Corporation	81, 82
National Association of Photo-Lithographers	112
Nekoosa-Edwards Paper Co.	July
New York & Pennsylvania Co.	June
Northwest Paper Co.	July
nuArc Co., The	121

O

Offen & Co., B.	126
Oxford Paper Co.	June

P

Pitman, Harold M., Co.	58
Polychrome Corp.	June
Printing Arts Research Laboratory	65, 66
Printing Machinery Co., The.....	119
Process Lithographers	July

R

Rapid Roller Co.	July
RBP Chemical & Supply, Inc.	June
Repro Graphic Machines, Inc.	June
Riegel Paper Corp.	June
Rising Paper Co.	June
Roberts, Inc., Lewis	June
Roberts & Porter, Inc.	3
Robertson Photo-Mechanix, Inc.	89
Roll-O-Graphic Corp.	June
Rosback Co., F. P.	Apr.
Royal Zenith Corp.	4
Rutherford Machinery Co., Div. of Sun Chem. Co.	May

S

St. Regis Paper Co.	67, 68
Saltzman, Inc., J. G.	June
Schmidt, H., & Co.	July
Schultz Deep Etch Chemicals.	119, 126
Scranton Plastic Laminating Corp.	July
Scriber Specialties	126
Siebold, Inc., J. H. & G. B.	June
Simeo Co., The	106
Sinclair & Valentine Co.	14
Stark Laboratories, John	June
Stevenson Photo Color Co.	122
Strong Electric Corp., The	July

T

Teitelbaum Sons, Inc., N.	July
--------------------------------	------

U

Uniform Graining Corp.	June
Union Bag-Camp Paper Corp.	85, 86
United States Envelope Co.	123

V

Vulcan Rubber Products Div., Reeves Brothers, Inc.	June
---	------

W

Wagner Litho Machinery Div.	72
Warren Co., S. D.	63, 64
Wausau Paper Mills Co.	33
West Virginia Pulp & Paper Co.	94, 95
World Color, Inc.	117

Y

Young Brothers Co.	75
-------------------------	----

(The advertisers' index has been accurately checked but no responsibility can be assumed for errors or omissions.)

TALE ENDS

WE assume, what with all the attractions, all interested lithographers have completed their plans for attending the Seventh Educational Graphic Arts Exposition in New York Sept. 6-12, at the Coliseum. A number of graphic arts groups, including PIA and the Craftsmen, will be meeting in conjunction with the show, so New York is the place to be in September. Advance reports on exhibits hint that a number of new presses, cameras and other units will make the show quite worthwhile to any plant on the lookout for new equipment.

In addition, the "Spectra 59" show, at the New York Trade Show Building, will have a number of interesting exhibits of graphic arts materials and equipment not only from the U. S. but from many foreign countries as well.

ML can't be much help on hotel reservations at this late date, we're afraid, but if you haven't received tickets for the Graphic Arts Exposition, we will be glad to supply them as long as they last, to interested lithographers who send us a stamped self-addressed envelope, along with their request.

Walter Soderstrom, whose achievements in the lithographic industry, as executive vice president of the National Association of Photo-Lithographers are widely known, has added another laurel to his crown. Last month he became the proud grandfather of a little boy who already shows quite an interest in lithography. Seems he's an authority on dampening!

Earle F. Opie, president of the Weber-Costello Co., Chicago Heights, Ill., lithographers and manufacturers of globes and other school supplies, was a member of a "people-to-people" party which early this summer visited

six Mid-Eastern countries under the auspices of the American Friends of the Middle East, Inc. Mr. Opie has, for five years, been building contacts toward the day when the hundreds of new schools planned for the Middle East, may become buyers of his company's products. On his trip in June, he visited local business men, chambers of commerce and government officials.

American businessmen need plenty of tact, understanding and patience, Mr. Opie told a Chicago newspaper reporter who interviewed him in Beirut, Lebanon. Government keeps a tight rein on business in all Middle East countries, he said, and a busi-

nessman has to be a sort of ambassador. There's plenty of competition, headed from Communist bloc nations, while even tougher to beat are the low-cost, high quality products coming from West Europe and Japan.

"American businessmen have their hands full" Mr. Opie concluded.

Guess we'll have to resign ourselves to failure in our efforts to keep the language pure. Despite our lecture of some months ago that the word means "a resort to a place by birds, mammals or other animals at an unusual time or in unusual numbers," we see that a whole raft of "visitations" have been planned for those September meetings.

A highly insulting speech by a "German Industrialist" at the Southwest Litho Clinic, almost led to bloodshed before the hoax was revealed, our Texas correspondent reports. The Wild-West theme of the clinic, in Dallas, caused quite a sensation and drew an attendance of 890. Next year the clinic will return to Houston. ★



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